National Library of Canada
Bibliothèque nationale du Canada

Canadian Theses Service
Service des thèses canadiennes

Ottawa, Canada
K1A 0N4

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Previously copyrighted materials (journal articles, published tests, etc.) are not filmed.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

Les documents qui font déjà l'objet d'un droit d'auteur (articles de revue, tests publiés, etc.) ne sont pas microfilmés.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30.

NL-339 (r. 88/04)

Canada

THE UNIVERSITY OF ALBERTA

THE IMPACT OF SYSTEMATIC FEEDBACK ON STUDENTS'SELF-ESTEEM

BY

© JOHN ROBERT KEARNS

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF DOCTOR OF PHILOSOPHY.

DEPARTMENT OF ELEMENTARY EDUCATION

EDMONTON, ALBERTA

FALL, 1987

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

ISBN 0-315-41087-6

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: John Robert Kearns

TITLE OF THESIS: THE IMPACT OF SYSTEMATIC FEEDBACK ON STUDENTS' SELF-ESTEEM

DEGREE: Ph.D.

YEAR THIS DEGREE GRANTED: 1987

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

(Student's signature)

41 Cole Farm Blvd.
St. Catharines, Ontario
L2N 7E2

Date: June 19, 1987

GO AS FAR AS YOU CAN SEE, THEN YOU CAN SEE FARTHER.

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "The Impact of Systematic Feedback on Students' Self-Esteem", submitted by John Robert Kearns in partial fulfillment of the requirements for the degree Doctor of Philosophy.

M Patricia Brown
.....
Supervisor

Peggy Platt
.....

E. E. Fox
.....

.....

Stuart G. Roberts
.....
External Examiner

Date..June.19,.1987.....

Abstract

The purpose of this study was to determine if any effects on self-esteem could be measured as the result of the application of an academic feedback program that emphasized student accomplishment.

The sample for this study consisted 145 grade six students from six different classes, three classees in each of the Control and Experimental groups. The Coopersmith Self-Esteem Inventory and the Canadian Test of Basic Skills were administered to both groups. The Coopersmith Self-Esteem Invertory provided five scores which were used as dependent variables (the Total score, General self, Social self, Home self and School self). The independent variable used in this study was the feedback program used by the teachers.

The analysis of variance was the statistical analysis used for describing the link between the independent and dependent variables. The analysis provided information which indicated the influence that the independent variable had.

It was noted that no differences were noted between Experimental group and the Control group at the outset of

this study. Further, no differences were observed between the pretest and the posttest scores of the Coopersmith Self-Esteem Inventory, except in the School self where the Experimental group scored significantly higher.

It was also observed that those students who scored low on the School self subtest also scored low on the Canadian Test of Basic Skills when this test was administered at the conclusion of the study. This leads to the conclusion that the gains that were made by these students on the School self subtest were made for reasons other than high levels of academic achievement.

In summary, the analysis indicted that a positive change in academic self-esteem occurs when teachers provide meaningful feedback to students regarding their accomplishments and in the specific manner prescribed by this program.

ACKNOWLEDGEMENTS

The completion of this project would never have been realized without the support and assistance of a great many people, a few of whom I would like to single out for particular mention.

To Dr. M.P. Browne, my thesis supervisor, who has been a source of valued feedback to me as the writing of the thesis slowly took shape.

To Dr. D. Sande who spoke on many occasions of all the ABD's that he knew and helped me to resolve that I would not be one of them.

And to my wife, Carol, an especially warm thank you for providing the encouragement and support needed during the long haul, and especially for believing in me when I sometimes questioned my own abilities.

TABLE OF CONTENTS

Chapter		Page
I.	INTRODUCTION AND STATEMENT OF THE PROBLEM	1
	PURPOSE OF THE STUDY	4
	SIGNIFICANCE OF THE STUDY	5
	DEFINITION OF TERMS	5
	LIMITATIONS OF THE STUDY	7
	ASSUMPTIONS	8
	RESEARCH QUESTIONS	9
	ORGANIZATION OF THE STUDY	10
II.	REVIEW OF RELATED LITERATURE	11
	SELF-CONCEPT	11
	How Self-Concept Develops	11
	Stability of the Self-Concept	13
	THEORIES OF ACHIEVEMENT MOTIVATION	16
	Learned Drive Theories	16
	Cognitive Attribution Theories	18
	Self-Worth Theory	20
	SCHOOLING AND SELF-CONCEPT DEVELOPMENT	23
	The Impact of Schooling on Student Self-Concept	23
	Self-Concept Enhancement Strategies in School	29
	Praise as Form of Reinforcing Feedback	34

Chapter		Page
III.	DESIGN OF THE STUDY	39
	RESEARCH DESIGN	39
	PRELIMINARY PROCEDURES	40
	Selection of the Instruments	41
	Securing Permission from the Waterloo County Board of Education	43
	Securing Teacher Cooperation	43
	Selection of the Subjects	44
	Planning the Experimental Program	44
	OPERATIONAL PROCEDURES	45
	Obtaining Parental Permission Forms	45
	Pretest All Subjects	45
	Presentation of the Treatment Program	46
	Administer the Posttest to Subjects	46
	Analysis of the Data	48
	DESCRIPTION OF THE EXPERIMENTAL PROGRAM	49
IV.	ANALYSIS OF THE DATA:FINDINGS	56
	Pretest Findings	56
	Research Question 1	57
	Null Hypothesis 1	57
	Presentation of the Results	57

Chapter		Page
	Research Question 2	62
	Null Hypothesis 2	62
	Presentation of the Results	62
	Research Question 3	69
	Null Hypothesis 3	69
	Presentation of the Results	69
	Research Question 4	80
	Null Hypothesis 4	80
	Presentation of the Results	80
	Research Question 5	92
	Null Hypothesis 5	92
	Presentation of the Results	92
	Canadian Test of Basic Skills	94
V.	SUMMARY, DISCUSSION, AND RECOMMENDATIONS FOR FUTURE STUDY	98
	Summary	98
	Discussion	101
	Hypothesis 1	102
	Hypothesis 2	103
	Hypothesis 3	105
	Hypothesis 4	106
	Hypothesis 5	111
	Canadian Test of Basic Skills	113
	Implications for Education	114

Recommendations for Future Study 115

BIBLIOGRAPHY 117

APPENDICES

Appendix A Letter to Parents 124

Appendix B Curriculum Checklists 126

LIST OF TABLES

Table		Page
1.	Research Design	40
2.	Research Design	47
3.	Scores for Self-Esteem Inventory Pretest:Total, General, Social, School, Home, and t-values	58
4.	Analysis of Variance Table for Pretest and Posttest Scores: Total SEI	59
5.	Scheffe Comparisons of Unweighted Main Effects	60
6.	Experimental Groups Pretest and Posttest General Scores for SEI	63
7.	Experimental Group Pretest and Posttest Social Scores for SEI	63
8.	Experimental Group Pretest and Posttest Home Scores for SEI	63
9.	Experimental Group Pretest and Posttest School Scores for SEI	64
10.	Control Group Pretest and Posttest General Scores for SEI	66
11.	Control Group Pretest and Posttest Social Scores for SEI	66
12.	Control Group Pretest and Posttest Home Scores for SEI	66
13.	Control Group Pretest and Posttest School Scores for SEI	67
14.	Analysis of Variance Table for Pretest and Postttest Scores General Subtest of SEI	70
15.	Scheffe Comparisons of Unweighted Main Effects For General Scores	70
16.	Analysis of Variance Table for Pretest and Posttest Scores Social Subtest of SEI	70

17. Scheffe Comparisons of Unweighted Main Effects for Social Scores 71

18. Analysis of Variance Table for Pretest and Posttest Scores Home Subtest for SEI 71

19. Analysis of Variance Table For Pretest and Posttest Scores School Subtest for SEI 71

20. Scheffe Comparisons of Unweighted Main Effects for School Scores 72

21. High and Low School Group:Means Table 82

22. Distribution of Students in Low and High School Groups for SEI 83

23. Analysis of Variance Table for Pretest and Posttest Scores:School Subtest for SEI Split by School Group 83

24. Analysis of Variance Table of Pretest and Posttest Scores:General Subtest for SEI Split by School Group 84

25. Analysis of Variance Table for Pretest and Posttest Scores:Social Subtest for SEI Split by School Group 84

26. Analysis of Variance Table for Pretest and Posttest Scores:Home Subtest for SEI Split by School Group 85

27. Analysis of Variance Table for Pretest and Posttest Scores:Total SEI Split by School Group 86

28. Group Means Over Time 87

29. Group Means Over Time 88

30. Analysis of Variance Table for Pretest and Posttest Scores for School Subtest 88

31. General Subttest:Group Means Over Time 89

32. Gender Splits SEI for Total SEI and Subtests 93

33. Means Table, School Scores Split by Gender and by Group 94

34. Distribution of Low School Scores for The Canadian Test of Basic Skills 96

LIST OF FIGURES

Figure		Page
1.	Academic Self-Concept Mean Scores for Successful and Unsuccessful Students	32
2.	Profile of Means:Total SEI	61
3.	Profile of Means:General SEI	74
4.	Profile of Means:Social SEI	77
5.	Profile of Means:Home SEI	79
6.	Profile of Means:School SEI	80

CHAPTER I

I. INTRODUCTION AND STATEMENT OF THE PROBLEM

While one goal of effective teaching is usually higher student achievement, there is an additional, more intangible component to effective teaching that cannot be measured by standardized achievement tests often used in our schools. That component is higher student self-esteem (Henry, 1986). Positive self-perceptions in relation to learning and school are particularly important if we see education as a life long process where people must initiate their own learning experiences.

Historically, studies have revealed a correlation between student self-esteem and school achievement. Generally, the studies have shown that pupils with positive self-esteem are more successful in school than pupils with negative self-esteem. While the exact nature of the relationship between self-esteem and school achievement has not been established, most educators would see the enhancement of self-esteem as important to school achievement. The problem, however, is that little research has been conducted that suggests ways to enhance self-esteem in the classroom. It was this concern that prompted the present study.

While the correlation between academic performance and self-esteem is widely documented and accepted by educators, and, since most teachers want their students to be as successful as possible in their academic work, it follows that the enhancement of student self-esteem could be an important step to this end. Waitley (1985) wrote that positive self-esteem is the most important and basic element that makes up the critical attitude necessary for success. Unfortunately, many students do not achieve at a high enough level of academic performance to experience positive self-esteem (Morse, 1964; Bills, 1978).

Recognizing that many students, for a variety of reasons, do not achieve at a sufficiently high academic level to enhance their self-esteem, there is a need to develop alternative techniques to address this issue.

In an informal survey of Junior classes (grades 4, 5, and 6), when the author asked students to be specifiic about what they had accomplished in school that year, it was found that most students could cite specific accomplishments in mathematics and physical education, but very few accomplishments in other curriculum areas. Upon examining the commonalities existing in mathematics and physical education, it was found that in both cases, objective feedback was readily available to the students

about how they had changed and about what they had actually done. It was much easier for students to know about their accomplishments in these two areas than in other curriculum areas.

However, much of the emphasis from parents and teachers in the school curriculum is placed on learning to read and write. As curriculum material is commonly presented to children, and because the change in the language arts and other areas are more subtle and subjective than it is in mathematics and physical education, it is difficult for students to know what they have done. It is not difficult to imagine a scenario where students spend many hours and exert much effort but fail to be aware of the differences, if any, the experience has made in them.

When teachers focus on high academic achievement, many students receive too little positive feedback about their work to enhance their self-esteem because they are not achieving at a high enough level to warrant any praise. There is a need for a means through which positive self-esteem can be developed in a school setting by all students, and is not limited primarily to high academic achievers.

This study grew out of this concern and examines the value of a planned and systematic feedback program to enhance self-esteem in grade six students.

II. PURPOSE OF THE STUDY

This study was designed to determine whether or not the self-esteem of students could be enhanced. The techniques identified by Brophy (1981) were followed to provide feedback to students as recognition of accomplishment. A search for answers to the following question comprised the major focus of the study:

1. Does student self-esteem rise when teachers make a conscious effort to recognize various areas of student accomplishment as opposed to high achievement?

All of the research questions posed in this study have been detailed in section VII. of this chapter.

III. SIGNIFICANCE OF THE STUDY

Numerous studies have reported on the positive correlation that exists between positive self-esteem and high levels of academic achievement. Most teachers desire that their students achieve to the best of their ability. There seems, however, to be a lack of literature available to assist classroom teachers to increase their students self-esteem and potentially to improve their students' level of achievement. This exploratory study should contribute to the existing knowledge of techniques available to affect students' self-esteem.

IV. DEFINITION OF TERMS

In order to clarify the meaning of the terms 'self-esteem', 'self-concept', and 'self', they are presented below as defined in the current literature. No clear deliniation among these terms is possible as each concept appears to be interlinked. To achieve some degree of clarity, the relationship among these terms will be expanded upon in the literature review. The distinction between 'achievement' and 'accomplishmment' reflects their use in this report.

Self-Esteem. "Self-esteem is a personal judgement of worthiness that is expressed in the attitudes the individual holds toward himself. It is a subjective experience which the individual conveys to others by verbal reports and other overt expressive behavior." (Coopersmith, 1967, p.5)

Self-Concept. "The self-concept is the image or picture the person has of himself, which has developed through childhood and adolesence under the formative influences of home, school and social environment, and forms his behavior." (Thomas, 1980, p.24)

Self. "The self is something which has a development; it is not initially there at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to the process as a whole and to other individuals within that process." (Mead, 1948, p.135)

Achievement. Achievement refers to the academic attainment at a sufficiently high level to enhance one's self-esteem or to maintain a high level of self-esteem in an academic environment.

Accomplishment. Accomplishment, as it is used in this

study refers to what a student has done. It is used in a non-evaluative manner and recognizes student efforts in working the various skill areas of the school curriculum.

V. LIMITATIONS OF THE STUDY

The following factors limit the interpretation of the findings:

1. The study was confined to six grade six classes over a period of eight months. The criteria for the selection of the classrooms was a willingness of the teachers and the principal of the selected schools to be involved. The behavior of these teachers could be different from the teachers who did not want to participate.

2. While every attempt was made to conduct parallel programs and employ parallel feedback techniques, these factors were tempered by the personality of the teachers and the inherent enthusiasm which they brought to class. This was an important factor which could not be totally controlled and may limit the extent to which generalizations about the findings of this study can be drawn.

3. Although this study spanned eight months, this

period is a relatively short time in the life of a child and can influence the degree to which generalizations about the findings can be drawn.

4. The teachers in the Control group, knowing the purpose of the study, may have acted differently toward their students than if they had not been part of the study. This possible action on the part of the Control group teachers may limit the accuracy of the comparisons between the scores taken from the Experimental and Control groups.

VI. ASSUMPTIONS

In conducting this study it was assumed that:

1. All school personnel would cooperate fully with the program.

2. The student's responses on the Coopersmith Self-Esteem Inventory (SEI) and the Canadian Test of Basic Skills would provide accurate information about the student in the areas that both of these tests were designed to measure.

3. The sample was representative of the population from which it was drawn.

4. The classroom teachers who volunteered to be part of this study did not interact with their students in a different manner generally than did classroom teachers at

large.

5. Self-esteem does exist.

VII. RESEARCH QUESTIONS

This study used a Control group and an Experimental group to compare changes that were measured within the students and it was guided by five research questions. Through the analysis of data, answers were sought to the following five questions:

1) Does a difference exist between the pretest and posttest Total SEI scores between the Experimental and Control groups?

2) Do significant differences exist between the pretest and posttest means on each of the four subtests of the SEI (General, Social, School, and Home) within the Experimental group and within the Control group?

3) Does a difference exist between the pretest and posttest means of the four subtests of the SEI (General, Social, School, and Home) between the Experimental and Control groups?

4) Does a difference exist in self-esteem scores between the "low School group" (defined in Chapter 4) and the "high School group" on the four subtests of the SEI (General, Social, School, and Home)?

5) Do boys record significantly different scores than girls on the Total SEI and on the four subtests of the SEI (General, Social, School, and Home)?

VIII. ORGANIZATION OF THE STUDY

Chapter I has provided the reader with an introduction to the research problem and the research questions addressed in this study. The remainder of the study is organized as follows:

1. Chapter II presents a rationale for the research problem. The rationale and the related studies lead into a model of the experimental program applied in this investigation.

2. Chapter III applies the rationale and the model in the description of the research design.

3. Chapter IV reports the findings of the study.

4. Chapter V concludes the report with the summary conclusions, and implications of the research.

5. The following information relevant to the study is included in the appendices:

   a. Examples of curriculum checklists used in this study.

   b. The letter sent to the parents informing them of the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

This review of literature looks at three areas of concern related to the study. The first area examined is the theoretical literature dealing with two aspects of self-concept theory, 1) how self-concept develops and 2) the stability of self-concept. Secondly, theories of achievement motivation are examined. Finally, research dealing with the impact of schooling on self-concept development, and the use of praise as reinforcing feedback is examined.

I. SELF-CONCEPT

The purpose of this section is to examine selected aspects of self-concept theory, in particular, how self-concept develops and whether or not the self-concept can be changed once it is developed. These two aspects are particularly relevant to this study because it examines the effects of an intervention program for changing self-esteem. Of particular concern is whether or not teachers can affect a change in self-concept.

How Self-Concept Develops

Assuming that the self-concept does exist, then one of the questions to ask is how does the self-concept develop?

In particular, what factors influence whether or not the self-concept is positive or negative? And, does the self-concept exist in a stable state, or is it open to change? Thomas (1980) writes that self-concept is not innate and most authors agree that self-concept is learned. James (1904) and Mead (1948) developed the idea that self-concept develops as the result of social interaction with significant others in one's life and their basic premise has been widely accepted. "Significant others" are identified as persons, such as parents, teachers, coaches and peers, who influence others. The theory sugggests that one learns to adopt the view held by significant others of one's self. The theory suggests that if one is treated with positive regard by significant others, one learns to view oneself positively. Similarly, if one is treated with negative regard by significant others, one learns to view oneself negatively.

As a group, children's self-esteem declines from the time they enter school until late into the high school years (Stanwych,1972; Stenner and Katzenmeyer, 1976; Bills,1978). Intervening to arrest this negative trend is a concern of this study.

For a child, most situations at school and at home are obligatory. These situations cannot be opted out of

regardless of how incapable a child might feel in that situation. For many children, publicly revealing one's incompetencies is a frequent experience which leads to the development of an increasingly negative opinion of oneself.

Stability of the Self-Concept

Gergen (1971), conducted research which indicated that the self was flexible in social situations. But Gergen also contended that there are central tendencies of one's self-concept that are learned and reinforced over time so that it becomes consistent throughout one's life. Syngg and Combs (1959) and Tuttle (1987) have sugggested that individuals seek to maintain and to enhance their perceived self. They imply that the self is open and receptive to change that is in a positive direction but resists change if it is going to mean a lower self evaluation. Both Sullivan (1953) and Allport (1961) theorized that individuals try to maintain an "inner consistency" of self.

Both Tuttle (1987) and Jersild (1952) stated that even though an individual's self attempts to maintain a consistent perception, re-evaluation is constantly occuring in light of new experiences. Jersild wrote that the question of whether to reject or assimilate an experience may depend in part on the frequency of the experience or one similar to it, and on the degree of importance that an

individual places on the experience.

Due to the interventionist nature of this study which attempts to positively influence students' self-esteem, sensitivity to the theory relating to the self-concept's stability is important.

Cohen (1958) theorized that changes in the self-concept are possible. He wrote that persons with low esteem want a self-image that is remoulded for the better. Others have conducted research supporting this position and found that self-esteem is a changing phenomenon over the entire course of one's life.

Brownfain (1952) stated that "self-esteem may be considered a correlate of self-concept" (p.605). In interpreting the findings from his research, Brownfain held the position that some people have stable self-concepts while others have unstable self-concepts. He theorized that if a person has low self-esteem, he likely has an unstable self-concept which is susceptable to change under certain conditions. This is consistent with Cohen's (1958) views, and with the views of Syngg and Combs (1959) when they state that people with low self-esteem strive to better their feelings of self. Brownfain (1952) wrote: "People with unstable self-concepts are unable to

consolidate their various self-concepts into a stable organization because they cannot tolerate the negative elements which are inherent in low self-esteem. So long as they are casting about for an acceptable self-picture, the self-concept must remain fluid." (p.605) This theory lends support to the interventionist approach used in this study. If students who have low self-esteem have unstable self-concepts, there is an implication that a more positive self can be developed.

Brownfain (1952) claimed that an individual who has negative self-esteem is more likely to be "situation dominated". Coopersmith (1967) also referred to this phenomenon. They maintained that if the situation is favorable, the individual's self-esteem is likely heightened. On the other hand, if the situation is unfavorable, the self-esteem may be lowered. Brownfain claimed that people with high self-esteem and stable self-concepts are less likely to view themselves as dominated by situations. The self-concept is stable to the extent that a radical restructuring is not needed as a consequence of a changing situation.

From the theory it can be seen that the self-concept is thought to be stable but that it can also be changed. Therefore, there are grounds for the interventionist

approach taken in this study.

In the next section, a review of literature dealing with achievement motivation and its relationship to the self-concept will be explored.

II. THEORIES OF ACHIEVEMENT MOTIVATION

This section examines several theories of achievement motivation and their relationship to self-worth theory of achievement motivation. These theories will be presented under the following headings: Learned Drive Theories, Cognitive Attribution Theories, and Self-Worth Theories. There is an evolutionary quality that links these three theories together, finally evolving into the Self-Worth Theory of achievement motivation which has significant implications to this study.

Learned Drive Theories

Contemporary theories of achievement motivation have been derived from physiologically based theories that emphasize the satisfaction of basic tissue needs like hunger and thirst. Theorists eventually broadened their focus to include psychological or learned drive motives such as approval and achievement.

In the late 50's and early 60's, David McClelland

(1965) and John Atkinson (1964) developed what came to be known as a learned drive theory. According to McClelland, the need for achievement results from a conflict between striving for success and an avoidance of failure. The manner in which individuals cope with this conflict is dependent largely on what one has learned through childhood experiences.

Research in this area (Rosen and D'Andrade, 1959; Coopersmith, 1967) indicated that an orientation toward achievement is associated with parental attempts to accept their children for themselves, to establish clear and enforcable rules of conduct and to allow children to explore widely within these boundaries. Teachers, also had a role in this pattern by delivering rewards and punishments to children.

Coopersmith (1967) wrote that achievement oriented children were rewarded for their successes, but when performances fell short of the adult expectation, parents and teachers remained neutral. Children who avoided failure were punished for their failures while adults were non-committal in the event of their successes.

This Learned Drive Theory established the early groundwork that in the 1970's evolved into the Cognitive

Attribution Theories.

Cognitive Attribution Theories

In the early 1970's, cognitive theorists led by Bernard Weiner posed a reinterpretation of the learned drive theory (Weiner, 1972; 1974; 1979). Weiner's work was guided by the principle of attribution theory which contends that the reason for an individual's future achievement can be attributed to his or her perception of the cause of past successes or failures. As in the learned drive theory, Weiner acknowledged that people hope for success or fear failure. To this was melded what Weiner perceived to be major causes of achievement, namely ability, effort, luck and the degree of task difficulty.

Generally, Weiner (1971) found that success oriented people attributed their successes to their ability and their failure to a lack of effort. Failure-avoiding people, on the other hand, tended to attribute their success to external factors such as luck and to attribute their failures to inability.

The focus in cognitive theory research has been on the role played by effort on achievement motivation. Because of the value of the work-ethic held by many teachers and parents, student effort is considered to be very important.

Several researchers (Omelich and Covington, 1979; Rest, Nierenberg, Weiner and Heckhausen, 1973; Weiner and Kukla, 1970) have found that students who are perceived by their teachers as having given a good effort received more reward when they were successful, and were punished less when they were unsuccessful. High degrees of effort have been found to increase feelings of pride in one's successes and reduce feelings of guilt that might otherwise be linked with not trying (Brown and Weiner, 1984; Covington and Omelich, 1979; 1981; 1984).

The Learned Drive Theory and the Cognitive Attribution Theory established the foundation upon which the Self-Worth Theory was founded, a theory that has significant implications for this study.

Self-Worth Theory

Covington (1984) wrote that as the primary activator of achievement behavior, self-worth theorists stress the ability perceptions of individuals as opposed to effort perceptions emphasized by the cognitive theorists. Like the learned drive theorists, self-worth theorists recognize that individuals attempt to strive for success or avoid failure. Self-worth theorists believe that personal esteem has its roots largely within one's accomplishments. This theory is based mainly on the perceptions of adults. The distinction that this theory makes in the case of children will be addressed shortly. One's perceptions of one's abilities therefore help to formulate a significant portion of one's self-definition. Covington (1976) elaborated on this position. He wrote that individuals are largely driven to succeed not only for reasons of personal gain, but also because being successful enhances one's reputation. The main implication of unsuccessful performance is that one lacks ability. Covington (1976) believed that if success appeared unlikely to an individual, one's first priority was to respond in a manner that minimized the implication of failure.

On the basis of the self-worth theory, Covington (1976) made several assumptions. First, he contended that a sense of self-worth depends heavily on one's

accomplishments. He wrote that "unless people can become successful at some valued activity, they will be cut off from a major source of self-esteem" (Covington, 1984, p.8) Although the perception of high ability can enhance the feeling of personal worth, it is principally in accomplishment that the sense of worth resides. One's sense of esteem cannot be maintained for long exclusively on one's reputation of being able.

Covington (1976; 1984) wrote that for children, effort is the supreme virtue. Harari and Covington (1981) wrote that work-ethic values reinforced by parents and teachers are essentially the strongest determinants of worth for children. Their research indicated that effort for children takes on the same valuation that adults accord to ability. For children, there is a psychological equivilance between ability, effort and achievement. This seems to occur for two reasons.

First, kindergarten and preschool children believe that children who try hard are smarter than those who don't try hard (Nicholls, 1976; Stikep, 1981; Harari and Covington, 1981). In these studies young children perceived effort and ability as synonymous. Secondly, Dweck (1983) refered to what he called the "incremental" theory of intelligence. Dweck wrote that children believe

that an increase in effort causes an increase in ability. He wrote that young children believed ability to be expandable through experience and instruction. Therefore, ability is seen by children as controlable in a similar manner as effort, hence "incremental".

From these studies, it appears that children attribute a greater role to effort as a source of personal worth than do adults. Nicholls (1976) stated that low ability people appear to hold value for effort to a later age than do high ability people.

The implication for attempting to enhance the self-esteem of children is that low ability people are frequently also low self-esteem people. In attempting to improve students feeling of self-worth, it would seem important for teachers to recognize both effort and accomplishment in their students. Through this action, teachers could attempt to enhance the feelings of self-worth for those students who do not feel worthy by virtue of their seeming inability to attain high levels of academic achievement. The interventionist program that is the basis for this study emphasizes the recognition of student accomplishment to attempt to enhance student self-esteem.

III. SCHOOLING AND SELF-CONCEPT DEVELOPMENT

The question, "What happens to a child's self-concept upon entering school?" can be addressed in two parts. First, what is the impact of schooling on a student's self-concept? And secondly, what results when strategies specifically designed to enhance self-concept are introduced into a school program? This study attempts to intervene to arrest the trend of declining self-concept scores among students. The review of literature that follows addresses this issue directly.

The Impact of Schooling on Student Self-Concept

The relationship between schooling and student self-concept has been the subject of considerable research. A review of the literature indicates that a variety of approaches have been investigated, but most research has been correlational. The intention of a correlational study is to establish the presence or absence of a relationship and not to determine cause and effect. Thus, the research reported in this section shows relationships between schooling and student's self-concept, but does not conclude exactly why the relationship exists.

Most educators hope that what goes on within a

classroom will in some way positively enhance student self-concept development. This desire however is not supported by empirical evidence. What is known is that for some students, schooling has a positive effect on their self-concept development while for others, the opposite is true. Bills (1978) for example, reported that for many students there is a trend toward increasingly negative self-concepts for each year that they remain in school. Bills measured the self perceptions of approximately twenty-six thousand students from grade three to grade twelve and concluded the following:

> "The data show developmental trends. Although some of these changes appear to be of a positive nature, the data overwhelmingly supports the conclusion that progressive deterioration is present in perceptions of self and of other people and in adherence to a set of values, many of which are of basic importance in human welfare and relationships. In short the data picture of the developmental trends in self-concept variables is negative leading to doubts about self-worth and the worth of other people, to increased defensiveness, and to rejection of values which are basic to feelings of worth, beliefs in the dignity and worth of other people, adequate interpersonal relationships and principles of behavior." (Bills, 1978)

Supporting Bills' (1978) work is research conducted by Stenner and Katzenmeyer (1976). Using the Self Observation Scale, an instrument designed to measure self-concept in primary students, and testing approximately

thirty-seven hundred students in grades one and three, they found that twice as many grade three students as grade one students believe that they are not physically attractive, and that twenty percent of the grade one pupils thought that other students in their class disliked them. By grade three, fifty percent more of the students indicated that they thought their classmates disliked them. Twenty-eight percent of the grade one students believed other people did not like their ideas. By grade three, thirty-four percent of the students had this belief. Further, more grade three students believed that their teachers disliked them than did grade one students.

Earlier evidence from Stanwych (1972) and Morse (1964) suggested that the decline in students' self-concept continues into the upper grades. Stanwych (1972) reported that eighty-four percent of third graders were proud of their school work, but only half of the eleventh grade students felt this way. In addition, ninety-three percent of young pupils believed they were doing their best work while only thirty-seven percent of grade eleven students felt this way.

From the evidence one might conclude that schooling has an affect on students' self-concept. For some students, the effects are positive. For some students, the

effects are negative. The important question is, "What are some of the variables within a child's school experience that might affect self-concept?"

Numerous investigations (Shaw, 1961; Fink, 1962; Combs, 1963; Durr and Schmatz, 1964; Farls, 1967; Williams and Cole, 1968) have been conducted to examine the relationship between academic achievement and self-concept. The findings are overwhelmingly indicative of a positive and significant relationship existing between these two variables, with high achievement usually accompaning high self-concept scores and low achievement usually accompaning low self-concept scores. Farls (1967) found that low achieving intermediate grade students had significantly lower general self-concept and academic self-concept scores than did their higher achieving peers. Similarily, Williams and Cole (1968) reported that this same relationship existed when self-concept scores were related to achievement in mathematics and reading. Other investigators (Shaw, 1961; Fink, 1962; Combs, 1963; Durr and Schmatz, 1964) found that underachieving students saw themselves as less adequate than their achieving peers and had a more negative self-concept than did achievers.

One might question if intelligence was also a variable that might be affecting these relationships. In a study by

Brookover et al (1965) involving over one thousand seventh grade students, it was found that a positive relationship between achievement and self-concept continued to exist even after IQ scores were controlled for. Shaw and Alves (1963) found that when comparing intelligent male high school students who were underachieving with students of equal intelligence who were achieving at their ability levels, the underachievers had significantly lower self-concept scores. This finding lends support to the position taken by the self-worth theorists regarding accommplishment. The conclusion that academic achievement and self-concept are related appears to be valid.

A problem that exists for educators is that it is largely those students who achieve who develop positive self-concepts. Many students who do not 'achieve' at a level sufficient to enhance self-concept experience frustration, stress, anxiety and an increasingly lower self-concept.

Another variable that has been found to be related to student self-concept is that of teacher characteristics. Two studies (Davidson and Land, 1960; Lewis, 1964) concluded that the perceptions that students have of their teacher's feelings toward them are highly correlated with their own self perceptions. Students who felt liked and

respected by their teachers had a higher self-concept than those students who perceived their teachers to be dissatisfied with them. These findings were consistent with self-concept theory proposed by Mead (1948), Allport (1961), Thomas (1980) and others who suggested that the self is learned from the interactions that one has with significant others in one's life. Teachers are one of the most significant people in a child's life and so the results of these two studies are not surprising.

Spaulding (1964) addressed the question, "What are teachers perceived to do by their students that lead students to believe that they are liked by their teachers?" Writing in Reading in Child Behavior (1964), he said:

> "Strong support was found...for positive relationships between teacher behavior and pupil self-concept that was characterized by a high degree of private and semi-private communication with children, of overt facilitation, of task oriented behavior, of concern for divergent responses in children, of attentiveness to pupil needs, of the use of control techniques involving humor--and a relatively low degree of negative evaluation, of domination through threat, of firmness in tone, of teacher-supportive control, of harsh taskmaster behavior, and of grim domination." (Spaulding, 1964, p.315)

In summary, the literature indicates that for many students, self-concept becomes increasingly negative throughout the school years. There is considerable

evidence to support a positive relationship between positive self-concept and academic achievement. Furthermore, teacher characteristics and the manner in which the teacher-pupil relationship unfolds is also seen to be positively related to self-concept development. This section of the literature review has a direct bearing on this study. This study attempted to intervene and reverse the downward trend of student self-concept described in this chapter.

Self-Concept Enhancement Strategies in School

This section examines strategies that have been employed to enhance student self-concept including studies of praise as a form of feedback to students.

The previous section has discussed the relationship between student self-concept and certain schooling variables. It was mentioned that some variables seem to interact differently with the self-concept of different students. Teachers may interact with students in a similar fashion but have different impact on the self-concept of these students. One challenge for educators then is to identify techniques to improve the self-concept of students that, for a variety of reasons, may need to be improved.

As previously noted, researchers have identified a

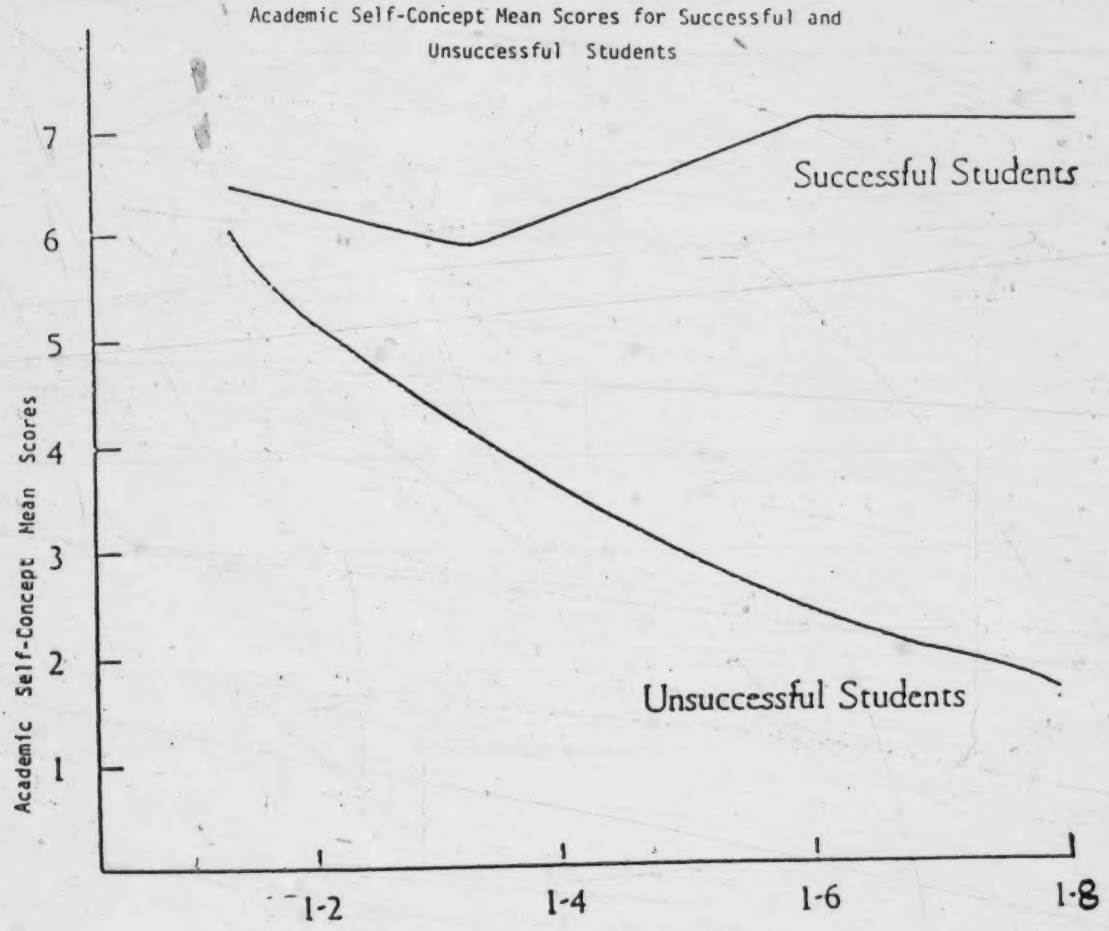
significant and positive relationship between achievement and self-concept, specifically academic self-concept. The question of whether children see themselves negatively because of their poor school performance, or whether they perform poorly in school because they see themselves negatively is still unresolved. Caution needs to be applied before one can assume that either self-concept determines scholastic performance or that scholastic performance shapes the self-concept. Alternatively, some factor still undetermined may be causal in the relationship between the two.

This debate has led many to theorize about the causal relationship between the two variables. Two theories have been founded around this issue. On the one hand, the self-enhancement theorists (Silvernail, 1985) adhere to the belief that an improvement in self-concept will lead to a corresponding improvement in achievement. On the other hand, the skill development theorists (Kifer, 1973) believe the opposite to be true. Kifer (1973) wrote that an initial change in achievement can explain the change in self-concept. These theorists urge educators to identify methods for improving students' academic achievement because the improved performance may lead to an enhancement of the students' self-concept.

While there is evidence to suggest that achievement and self-concept are mutually dependent, recent investigations are increasingly giving more support to skill development theory. This theory suggests that students first improve their academic results and this is followed by an improvement in self-concept. The theory underlying the skill development model is basic to this study.

A graphic representation of Kifer's (1973) findings are displayed in Figure 1. In a cross sectional investigation, Kifer studied the long term effects of repeated academic successes and failures. Of interest to Kifer were students in the upper fifth and lower fifth of their class as determined by their teacher's marks. The students were examined over four time periods: grades 1-2, grades 1-4, grades 1-6, and grades 1-8. That is, one group of students ranked in the upper fifth and another group of students ranked in the lowest fifth for two years (grades 1-2), other groups for four years (grades 1-4), and so on. Some students then had two years of success or failure, others had four, six, or eight years of success or failure. A modification of Brookover's test of academic self-concept was given to each group of students.

Figure 1
Academic Self-Concept Mean Scores for Successful and Unsuccessful Students



From the results, one can see that the academic self-concept of successful and unsuccessful students becomes more divergent over time. According to Kifer (1973), this is support for the theory that changes in achievement lead to changes in self-concept. Bloom (1977) writing in Phi Delta Kappan stated: "...the evidence provided by this study (Kifer, 1973) strongly implies that self-concept of ability is in large part dependent on students' perceptions of their relative achievement (teachers' marks) over these critical years in the elementary-junior high school period" (p.195).

Further evidence in support of the skill development model comes from the work of Schreirer and Kraut (1979). These researchers reviewed many programs and strategies that were designed to improve achievement by first improving self-concept. These were programs such as Head Start and Upward Bound, which have good reputations within the educational community. After extensive review of the programs, the investigators failed to find a causal relationship between self-concept changes and achievement. However, they did conclude that the evidence favored the skill development model. In this study, the recognition of student accomplishment and skill attainment is basic to the attempt to enhance student self-concept in the interventionist program that was implemented.

The findings reported above may suggest that educators need to direct more of their energies to identifying effective methods of increasing the academic achievement of students. While evidence seems to favor the skill development model, the evidence does not rule out the merit of self-enhancement theory. There seems to be a mutual dependency between self-concept and achievement, a continuous interaction with one directly influencing the other. What appears to occur is that achievement leads to an improved self-concept and in turn a higher self-concept leads to better achievement. Ballif (1978) wrote that students' self-concept influences their motivation to learn in the first place. If students feel poorly about themselves as learners, they may lack the motivation to improve their performance in academic related areas.

Praise as a Form of Reinforcing Feedback

Brophy (1981) conducted research which contradicted the commonly held belief of many educators that praise is a desirable and valuable form of student reinforcement. Brophy found that measures of teacher praise failed to correlate with other dependent classroom variables in a manner that would be expected if praise were functioning as a positive reinforcer for the students to whom it was given. Brophy uses the term 'praise' to mean a way to commend the worth of or to express approval or admiration.

In explaining the reason for this apparent contradiction, Brophy indicated that praise is often used for unpraiseworthy behavior and in circumstances not requiring praise.

Brophy (1981,1981a) argued that teachers do not use praise very effectively in that praise is used even when it is undeserved. For instance, Brophy reported that teacher praise can be a conditioned reaction that is shaped by student behavior. This finding supported Yarrow, Waxler and Scott (1978) who found that preschool children could be trained in behavior that would 'recruit' praise from their teachers to the extent that children who had been trained did receive more praise from their teachers than did children who had not received the training. Brophy further argued that teacher praise can be elicited by a variety of personal characteristics and behaviors and that praise is not usually part of a systematic attempt on the part of the teacher to shape student behavior through positive reinforcement. Most studies indicate that praise is often ineffective as it is routinely implemented in classrooms (Brophy and Evertson, 1976; Good, Ebmeier and Beckerman, 1978; Anderson, Evertson and Brophy, 1979; Martin and Veldman, 1980).

O'Leary and O'Leary (1977) wrote that to function

effectively as a reinforcer, praise should:

1) be delivered contingent upon performance of the behavior to be reinforced;

2) specify the particulars of the behavior being reinforced; and

3) be delivered in a sincere tone and expressed in terms appropriate to the specifics of the situation.

Anderson, Evertson and Brophy (1979) found that not only do teachers fail to praise contingently, but in an attempt to encourage students, teachers often praised students for low-quality and even incorrect work. Most teacher praise was found to be vague. These authors found that first grade teachers were specific only five percent of the time in their praise following good work.

Brophy (1981a) wrote about other misuses of praise that reduced its effectiveness. He stated that sometimes teachers used praise as an icebreaker to help establish communication with students who had been criticized or in some manner alienated. Praise was also administered as a control mechanism and as a transition ritual rather than as a reinforcer.

In several studies using class means (Brophy and

Evertson, 1976; Good, Ebmeier and Beckerman, 1978; Anderson, Evertson and Brophy, 1979; Martin and Veldman, 1980), it has been found that praise correlates weakly but positively in the early elementary grades with student achievement in only the low-ability students.

Brophy (1981) wrote that the manner in which the feedback is delivered is crucial for its sucesss. He wrote, praise should:

1) be informative or appreciative, not controlling;
2) be contingent upon objective accomplishment;
3) specify the particulars of the accomplishment;
4) be individualized;
5) attribute success to effort and ability;
6) attribute effort expenditure to intrinsic motivation; and
7) most praise should be private.

These guidelines are a valuable contribution, not only to the work regarding praise, but to the area of student feedback in general. The research that has been conducted and reported in this section studies the routine administration of praise and feedback and not the systematic implementation of Brophy's guidelines noted above. Most investigations have examined behavior and

achievement as it correlates with feedback and praise. Moreover, no empirical studies to date have been conducted which examine the systematic implementation of Brophy's guidelines and their impact on student self-attitutes. This area needs to be investigated.

A description of the Experimental program which uses Brophy's 1981 guidelines for providing feedback and praise follows in Chapter 3.

CHAPTER III

DESIGN OF THE STUDY

The design of the study is reported in this chapter. Included are: Research Design, Preliminary Procedures, Operational Procedures, the Analysis of Data, and a Description of the Experimental Program.

I. RESEARCH DESIGN

The type of design that was used in this study was the nonequivalent control group design as outlined in Campbell and Stanley's (1963) book Experimental and Quasi-Experimental Design for Research. The distinguishing feature that separates this design from a true pretest-posttest experimental design is its inability to control the randomization of the sample. In this design, it is not assumed that the groups have pre-experimental sampling equivalance. This design is plausible and worthwhile for research in a field setting where the researcher does not have control over the groups. One strength of this design over a pre-experimental one-group pretest-posttest design however is that it offers the control group as an additional comparison. Table 1 shows the diagram for the nonequivalent control group design that

was used in this study, where "O" represents the testing phase of the design, and "X" represents the treatment phase of the design.

In this study, X was uncontrolled in the sense that not all students saw results the same number of times, at the same time of day or for the same period of time. Students also did not see the same results. They saw their own results which differed from one student to another.

Experimental Group	O	X	O
Control Group	O		O

Table 1: Research Design

II. PRELIMINARY PROCEDURES

The preliminary procedures were as follows: (1) selection of the instrument to measure the self-concept; (2) securing permission from the Waterloo County Board of Education to conduct the research; (3) securing cooperation of the teachers in the Grade Six classes; (4) selection of the subjects; (5) planning the experimental program for the experimental group.

Selection of the Instruments

The Coopersmith Self-Esteem Inventory (SEI) was selected because it is comprised of four subscales which measure attitudes toward self in a) social, b) academic, c) family and d) general areas of experience. According to Mitchell (1985), it is valid and reliable. It is among the best known and most widely used of the various self-esteem measures. It is interpretable by the researcher within the boundaries of this study and the scale can be computer scored. In relation to the SEI, the term "self-esteem" refers to the evaluation that a person makes and maintains about oneself.

Coopersmith (1967) began the construction of the Self-Esteem Inventory in the early 1960's. The present form (1981) has been revised from that earlier work. The 1981 version is made up of a School Form for children from eight to fifteen years of age and consists of fifty-eight items. The four subscales (General, Social, Home, and School) allow for variances in perception of self-esteem in a child's different areas of experience. Reliability, based on a test-retest method and reported in the SEI manual (Coopersmith, 1981), revealed a reliability varying from .87 to .92 over a six month interval depending on the group tested.

In order to determine levels of academic achievement, a second instrument, the Canadian Test of Basic Skills (1976) (CTBS) was administered. The CTBS is a standardized academic achievement test that is normed to Canadian elementary school aged children. The standardization was done on a group of 30000 children drawn from a random sample of 225 elementary schools from the English speaking section of all ten Canadian provinces (Buros, 1972). It is based in principle on the Iowa Test of Basic Skills, that is, it is meant to test concepts rather than content. Norms are reported in both percentiles and in grade equivilant scores which are directly translated from the raw test scores.

The authors of the CTBS do not publish validity and reliability figures for the test, but instead caution that the "most valid achievement test for your school is the one that defines most adequately your objectives of instruction" (The Canadian Test of Basic Skills Manual, p. 7). They do however report the intercorrelations among the subtests. For the various components of the Language Arts tests (vocabulary, reading, spelling, capitalization, punctuation, and usage) an intercorrelation of .91 is reported. For the various components of the Mathematics section (mathematical concepts and problem solving), the authors report an intercorrelation of .88. These

intercorrelations indicate the extent to which the obtained scores measure the same quality from grade to grade. The level of performance from grade to grade is partilly due to such factors as the extent of one's vocabulary and one's ability to read. However, varibility in the quality of schooling is another factor which would be reflected in the achievement results. It is believed that the CTBS was well suited for use in this study.

Securing Permission From the Waterloo County Board of Education (WCBE)

A letter outlining the nature of the research and seeking permission to conduct the research during the 1984-85 school year was sent to the Director of Education for the WCBE in February of 1984. Permission was granted by the Waterloo County Board of Education in March, 1984 to conduct the research.

Securing Teacher Cooperation

By May of 1984, six Grade Six teachers in five different schools had agreed to cooperate with the research. Three Grade Six teachers had volunteered their classes to act as the experimental group for the research and three other teachers volunteered their classes to act as the control group. In all, five different schools were represented in this study. Three different schools housed

the control group and two different schools housed the Experimental group.

Selection of the Subjects

A total of six Grade Six classes were required for this study. The composition of classes in these WCBE schools was structured in such a way that a heterogeneous distribution of academic ability existed within each class to the extent that this is normally found. The classes that made up the experimental group and control group were those classes in which the classroom teacher volunteered to cooperate in the study in the experimental role. Attention was paid to the selection of the groups so that they came from as similar an ethnic and socio-economic background as possible. To the extent that it was possible, a) school populations were controled to within one hundred pupils; b) all classes contained students who came from both housing ranging from subsidized to upper middle class housing; and c) all classes contained various racial representations.

Planning the Experimental Program

The experimental group took part in the regular curriculum as outlined by the WCBE and was also subject to the experimental program (described later in this chapter) which was jointly planned by the three Grade Six teachers and the author. The three control classes followed the

regular curriculum as outlined by the WCBE and their program was planned by the classroom teacher of each class.

III. OPERATIONAL PROCEDURES

The operational procedures used in this study were: (1) to obtain parental permission for all students to participate in the study; 2) to pretest all subjects involved in the study to assess their present levels of self-esteem; (3) to present the treatment program to the experimental groups; (4) to administer the posttest for the Self-Esteem Inventory [SEI] and administer the Canadian Test of Basic Skills [CTBS]) to all subjects involved in the study; (5) to analyze the data.

Obtaining Parental Permission Forms

A permission form requesting to test the students was sent home with each pupil. No permission was sought to have the students participate in the program because the program was a regular component of the WCBE curriculum and part of the normal course of school studies. It was indicated on the permission form that all responses would be kept confidential.

Pretest All Subjects

During class time and prior to the beginning of the study, the students were briefly informed as to the nature

of the study. The students were asked to participate in the study and to give their cooperation. Then, the students in the experimental and control groups were tested using Coopersmith's Self-Esteem Inventory.

Presentation of the Treatment Program

Within the experimental group, the length of time on task was kept identical. The experimental group received the regular curriculum in addition to the experimental component of the program. The control group received the regular curriculum. The Grade Six teachers who were working in the experimental groups had the opportunity to meet on regular basis with the author throughout the year to ensure that parallel programs were being conducted and to deal with any problems that were encountered as they arose.

Administer the Posttest to Subjects

At the conclusion of the eight month program, the posttest phase of the study began. All subjects in both groups were administered the SEI and the CTBS at the conclusion of the study. The CTBS was administered to the students to assess their level of academic achievement. All students participating in the study completed the SEI at the mid-point of the study also. The possibility

existed that an increase in self-esteem may have occurred after four months. By administering the SEI in the fall, winter, and spring, detection of a plateauing effect in the winter could be studied.

The research design outlined in Table 1 can now be expanded to illustrate the specifics of the proposed study. The following plan for testing was followed:

Fall	Winter	Spring
SEI	SEI	SEI
		CTBS

Table 2: Research Design

All posttest data was retained for analysis.

Analysis of the Data

Following the collection of the data, a statistical analysis was undertaken. Correlated and uncorrelated t-tests and an analysis of variance were used to test for statistical significance.

The purpose of this study was to investigate the effects of a feedback program, emphasizing accomplishment on student's self-esteem. Chapter 4 reports the results of the statistical analysis of the data collected from the Coopersmith Self-Esteem Inventory (SEI) and the Canadian Test of Basic Skills (CTBS), the tests used to determine the effects of that feedback program.

The study was guided by five research questions. Through the analysis of data, answers were sought to the following five questions:

1) Does a difference exist between the pretest and posttest Total SEI scores between the Experimental and Control groups?

2) Do significant differences exist between the pretest and posttest means on each of the four subtests of the SEI (General, Social, School, and Home) within the Experimental group and within the Control group?

3) Does a difference exist between the pretest and

posttest means of the four subtests of the SEI (General, Social, School, and Home) between the Experimental and Control groups?

4) Does a difference exist in self-esteem scores between the "low School group" (defined in Chapter 4) and the "high School group" on the four subtests of the SEI (General, Social, School, and Home)?

5) Do boys record significantly different scores than girls on the Total SEI and on the four subtests of the SEI (General, Social, School, and Home)?

Description of the Experimental Program

Prior to focusing on the problem of this study, the researcher read widely about self-esteem and and its relation to physical activity. Many writers have written that physical activity has a positive effect on the development of self-esteem (see Glencross, 1978; Harris, 1973; Kane, 1972; and Whiting, 1978). Other authors (Johnston, 1969; Christian, 1969, Neale, Tonstroem and Metz, 1969; Gary and Guthrie, 1972; Keith, 1972; Southall, 1973; Roessler, Bolton, Means, and Milligan, 1975) have noted that some physical education programs, even though fitness levels had improved, did not increase the participants' self-concept level. However, this author

noted that some commonalities existed in the programs that reported an increase in self-esteem levels. In most cases, the successful physical activity programs included the following factors: a) the participants perceived the program to be challenging; b) the participants acquired some skill or increased their ability in an area that held some value for them; c) the participants perceived the program to be dangerous or risky; d) the program was developmentally appropriate, that is, the participants were physically, mentally and emotionally capable of responding to the program's expectations; e) the program was presented in a sequential manner; and f) the participants felt a sense of accomplishment based on recognizable progress toward achieveable goals.

From the list of factors that appeared to be operating in physical activity programs that were successful in enhancing self-esteem in their participants, one factor, the sense of accomplishment, was identified as very important to the development of the self-concept. The decision was made to focus on the factor of accomplishment in this study because it was believed that accomplishment was a broad factor which included other factors as well. It was believed that if students could see, through their accomplishments, that they were acquiring new skills in academic areas, this would be viewed as positive by them.

While the students may not have valued the academic skills in every case, it was felt that they would value them because their parents in most cases believed academic skills to be important.

It was also felt that learning anything new can have elements of risk associated with it. While the risk is not dangerous in a physical sense, learning can be seen to be risky in a psychological sense when one must display what one has learned to others. A good example of this type of risk occurs when one is asked to speak in public. Many find this is a stressful experience in which they must risk themselves psychologically. To recognize accomplishment in a school setting, it is implied that learning in an academic sense has occured and therefore some risk on the part of the student has been experienced.

If one goal of educators is to help children build a positive self-image, then one way we may do this is to feed back to students our sense that they are worthwhile, capable people. Therefore, in this study an attempt was made to increase student self-esteem by a) having the classroom teacher follow specific guidelines to provide feedback to students (Brophy, 1981) and b) focusing the feedback on student accomplishment in skill areas as opposed to primarily high academic achievement. Through

this approach, the focus of the student's school experience was on what one "could do" as opposed to what one "could not do".

Following the selection of the Experimental group teachers, (see Chapter IV for full details on this procedure) the three teachers and the author met to a) select the skills from the curriculum guidelines that were appropriate for grade six students to learn, b) familiarize the teachers with the guidelines for providing feedback to the students, c) agree on a workable approach to providing feedback to the students and d) standardize procedures for administering the tests (Coopersmith Self-Esteem Inventory and The Canadian Test of Basic Skills) used in this study.

Each curriculum guide (Language Arts, Mathematics, Environmental Studies, Art, Physical Education, and Library) was examined to identify those skills a student would use when working within the content areas. Once identified, these skills were arranged to form a series of checklists (see Appendix) according to subject area. The purpose of selecting specific skills was to have a vehicle by which to show students exactly what they had done in a variety of areas without reference, necessarily, to how well they had performed the skill. When students had performed a skill in a commendable manner, or when they had

shown growth in a skill area based on their past performance, this was considered to be a praiseworthy occurrance and was brought to the student's attention by the teacher. Where feedback was given that dealt with achievement, past performance was used as the measure of comparison so that the predominant tone of the feedback was positive and realistic for the student.

Parent volunteers were utilized to keep accurrate records of the students accomplishments in the skill areas. Following teacher guidelines that reflected what each student had completed, the parent volunteers completed a checklist that described the accomplishments of individual students. This weekly process was time consuming and became a major difficulty for the Experimental group teachers in running a smooth program.

The three grade six teachers and the researcher also discussed the guidelines for providing feedback to the students. The following are the guidelines that were used in this study to provide feedback to the students about their accomplishments in the skill areas alluded to above. Feedback should:

1) be informative or appreciative, not controlling;

2) be contingent upon objective accomplishment or

lack of accomplishment;

3) specify the particulars of the accomplishment;

4) be individualized;

5) attribute success to effort and ability;

6) attribute effort expenditure to intrinsic motivation; and

7) be private.

These guidelines for providing feedback were followed to show students the personal progress that each had made in the skill areas. The focus of the feedback was on the skills the student had accomplished. Students received feedback on variable schedules that reflected individual student progress, individual student need, and curriculum unit activities. The scheduling of the feedback varied from one class to another and varied between students.

Prior to beginning the program, the three teachers and the author also discussed specific strategies that were in keeping with the above guidelines that could be employed. Each teacher used the following strategies within their class: a) make positive and personal contact with the home for all students.

b) provide for student self-evaluation of their own work and make plans for future growth in keeping with the

student's self-evaluation.

c) provide time for students to make personal journals of their successes and progress that had been made each week.

d) find positive strengths in all students and give recognition for this, and provide opportunities for students to extend these strengths.

e) recognize positive traits in student's work and relate this to previous work whenever possible.

f) place success within the reach of every student. Define success in a variety of ways so that it allows for individual differences.

g) write positive comments on student work in addition to grades and often instead of grades.

The teachers and researcher met regularly (approximately once per month) throughout the school year to discuss emerging feelings toward the program, and the successes and the problems with the program as they arose. The monthly meetings usually had full attendance. The author occasionally met with individual teachers to discuss specific difficulties. (The researcher was unable to visit the Experimental classes during school hours because he was a classroom teacher who could not obtain release time for this purpose).

CHAPTER IV

ANALYSIS OF THE DATA:FINDINGS

The purpose of this study was to investigate the effects of a feedback program, emphasizing accomplishment, on student's self-esteem. This chapter reports the results of the statistical analysis of the data collected from the Coopersmith Self-Esteem Inventory (SEI) and the Canadian Test of Basic Skills (CTBS), the tests used to determine the effects of that feedback program.

The study was guided by five research questions. The results for each research question are presented in the order in which they were posed in Chapter 3, from Research Question 1 to 5.

The data from the SEI were analyzed initially to determine if differences in self-esteem as measured, existed between the Experimental and Control groups prior to beginning of the study. A two-tailed t-test was used to determine if there were differences between the pretest scores of the Total SEI and the four subtests (General, Social, Home, and School) prior to the start of the study between the two groups. As Table 3 indicates, the t-value needed to be exceeded for significance at 143 degrees of freedom was 1.960. This value was not exceeded in any of the five comparisons. Since there was no difference

between the Experimental and Control groups in self-esteem at the beginning of the study, it was decided to proceed with this study.

Research Question 1

Does a difference exist between the pretest and posttest Total SEI scores between the Experimental and Control groups?

Null Hypothesis 1

There would be no difference between the pretest and posttest Total SEI scores between the Experimental and Control groups.

Presentation of the Results

A two-way analysis of variance was used to determine if significant differences existed between the means of the pretest and posttest Total SEI scores between the Experimental and Control groups. An F-value of 3.91 was required for significance at the 0.05 level.

Table 3
Scores for Self-Esteem Inventory Pretest:
Total, General, Social, School, Home, and t-values

Variable	N	Mean	SD	t-value
Total				
Exp.	80	33.8750	6.559	-0.23
Con.	65	34.1385	6.995	*****
General				
Exp.	80	17.2625	3.645	-0.64
Con.	65	17.6615	3.858	*****
Social				
Exp.	80	5.6250	1.578	-0.50
Con.	65	5.7538	1.521	*****
School				
Exp.	80	5.0375	1.886	-0.42
Con.	65	5.1692	1.842	*****
Home				
Exp.	80	5.9500	1.713	1.30
Con.	65	5.5538	1.969	*****

Significance at the 0.05 level, value required for 143 degrees of freedom = 1.960

In Table 4, Factor A represents the main effect of the Experimental and Control groups collapsed over time. Factor B represents the combined scores of the Experimental and Control groups compared over time. Critical levels for both 0.05 andd 0.10 are presented. Because of the difficulty in applying strict controls in this study due to the field nature of the approach, both levels are discussed.

As Table 4 indicates, the F-ratio for Factor A was 0.476 which did not exceed the 3.91 level required for significance. The null hypothesis that there is no difference between the pretest and posttest scores for the Total SEI between the Experimental and Control groups could not be rejected at the 0.05 level nor at the 0.10 level.

Table 4
Analysis of Variance Table for
Pretest and Posttest Scores
Total SEI

Source	df	S.S.	M-S	F-Ratio	Prob.
Between Subjects	144	19400			
A	1	64.44	64.440	0.476	0.491
Subjects Wthn gr.	143	19340	135.240		
Within Subjects	290				
B	2	459.80	229.881	16.015	0.000
AB	2	30.54	15.269	1.064	0.347
Wthn gr.	286	4105.00	14.354		

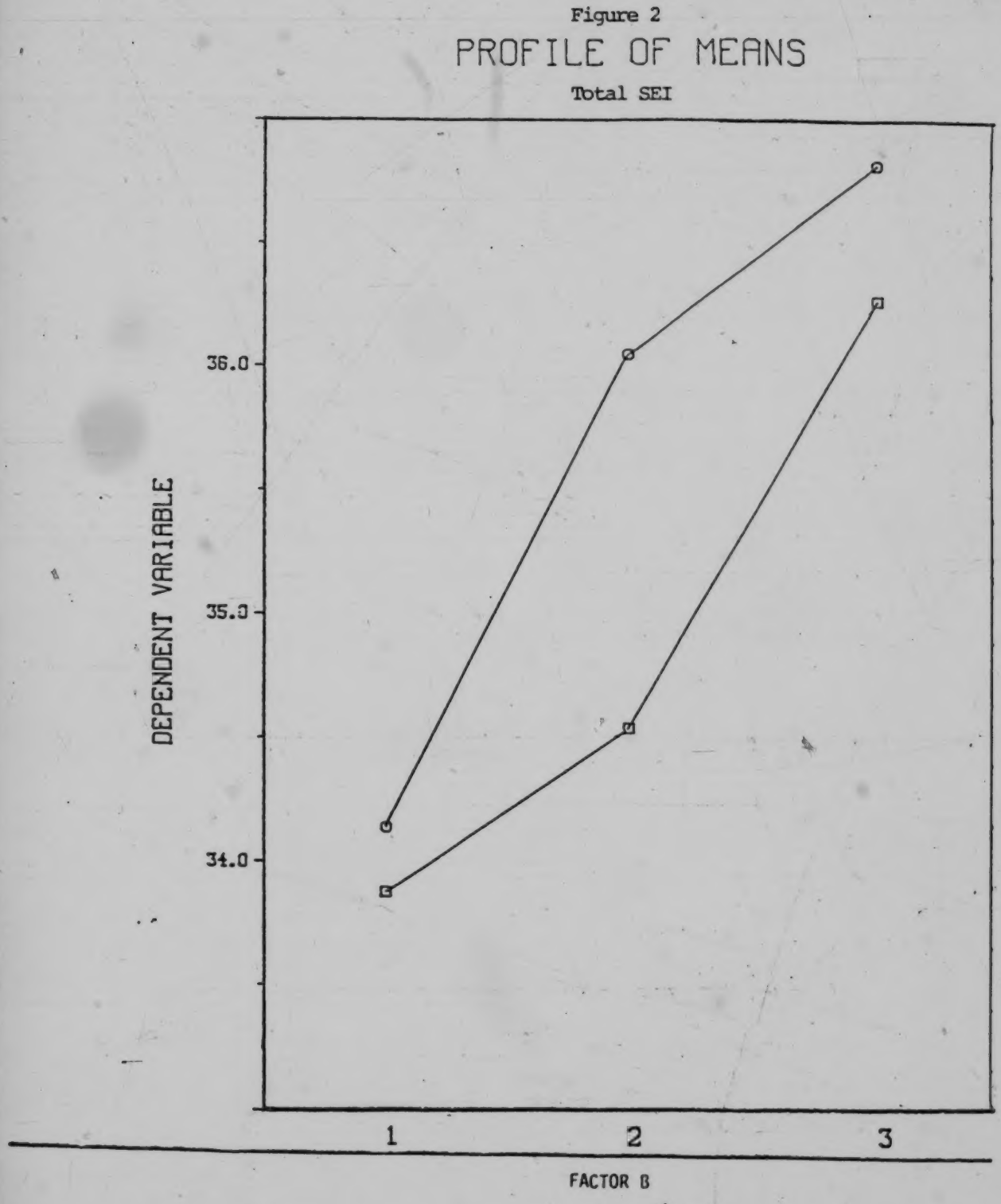
As Table 4 indicates, Factor B, the time effect, significantly changes over time. The F-ratio of 16.015 exceeds the critical values at both the 0.05 and 0.1 levels so the null hypothesis with regard to time must be rejected. Using the Scheffe Comparisons of Unweighted Main Effects (Table 5), it is evident that the change over time for the Total SEI scores is not limited to one time during the study but is in a strong positive direction throughout the duration of the program. Figure 3 illustrates this continual positive trend.

The AB interaction comparing the Experimental and Control groups over time indicates that although there was a significant change over time, the change between these two groups was not significantly different from one another. The null hypothesis was not rejected for the AB interaction.

Table 5
Scheffe Comparisons of Unweighted Main Effects

Time	Contrast	F-Ratio	Prob.
Fall-Winter	-1.2851	4.170	0.016
Fall-Spring	-2.5322	16.193	0.000
Winter-Spring	-1.2471	3.928	0.021

Figure 2


PROFILE OF MEANS
Total SEI
DEPENDENT VARIABLE
36.0
35.0
34.0
1
2
3
FACTOR B
Exp.
Control

Research Question 2

Do significant differences exist between the pretest and posttest means on each of the four subtests of the SEI (General, Social, School and Home) within the Experimental group and within the Control group?

Null Hypothesis 2

There would be no difference between the pretest and posttest means of the four subtests of the SEI within the Experimental group or within the Control group.

Presentation of the Results

A correlated t-test was used to determine if significant differences existed between the pretest and posttest means of the four subtests of the SEI (General, Social, School and Home) within the Experimental group and within the Control group. The verbal presentation of the Experimental group results will begin following Table 9. The verbal results of the Control group will follow Table 13.

Table 6
Experimental Group
Pretest and Posttest General Scores for SEI
Numbers, Means, Standard Deviations, t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	80	17.262	3.645	*****	*****
Winter	80	17.597	3.662	*****	*****
Spring	80	18.400	4.324	*****	*****
Fall-Winter				-1.55	0.125
Winter-Sp.				3.04	0.003
Fall-Spring				-3.42	0.001

Table 7
Experimental Group
Pretest and Posttest Social Scores for SEI
Numbers, Means, Standard Deviations, t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	80	5.625	1.578	*****	*****
Winter	80	5.525	1.849	*****	*****
Spring	80	5.900	1.839	*****	*****
Fall-Winter				0.920	0.362
Winter-Sp.				2.810	0.006
Fall-Spring				-1.930	0.057

Table 8
Experimental Group
Pretest and Posttest Home Scores for SEI
Numbers, Means, Standard Deviations, t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	80	5.950	1.713	*****	*****
Winter	80	5.950	1.683	*****	*****
Spring	80	5.925	2.151	*****	*****
Fall-Winter				0.000	1.000
Winter-Sp.				-0.160	0.875
Fall-Spring				0.150	0.883

Table 9
Experimental Group
Pretest and Posttest School Scores for SEI Numbers, Means, Standard Deviations, t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	80	5.035	1.886	*****	*****
Winter	80	5.475	1.736	*****	*****
Spring	80	6.037	1.649	*****	*****
Fall-Winter				-3.52	0.001
Winter-Sp.				3.21	0.002
Fall-Spring				4.56	0.000

As Table 6 indicates, a significant change existed between the pretest and posttest scores for the Experimental group in the General Subtest of the SEI. The t-value needed to be exceeded for 60 to 119 degrees of freedom at the 0.05 level was 2.00. This level was exceeded during the Winter-Spring and the Fall-Spring comparisons. The Fall-Winter comparison was significant at the 0.10 level. The null hypothesis is therefore rejected.

As Table 7 indicates, the Social Subtest scores for the Experimental group were significant at the 0.05 level for the Winter-Spring comparison only. The Fall-Spring comparison was significant at the 0.10 level. The Fall-Winter comparison did not pass the critical level of 2.00. The null hypothesis that there would be no difference in the pretest and posttest levels of the Social Subtest scores is accepted for the Fall-Winter comparison. The null hypothesis is rejected for the Winter-Spring

comparison at the 0.05 level, and at the 0.10 level for the Fall-Spring comparison.

As Table 8 indicates, the pretest and posttest scores for the Home Subtest of the SEI were compared for three different time periods, Fall-Winter, Fall-Spring, and Winter-Spring. None of the three comparisons were significant at either the 0.10 level or the 0.05 level. The null hypothesis could not be accepted for all three comparisons.

Table 9 contains the results of the School Subtest of the SEI for the Experimental group. Comparing the pretest and posttest means, significant differences were found at the 0.001 level at three different comparison times, Fall-Winter, Fall-Spring, and Winter-Spring. The null hypothesis was rejected for all three comparisons.

To test for significant differences between the means of the four subtests of the SEI (General, Social, Home, and School) for the Control group, a correlated t-test was used. The results of these t-tests are presented in Tables 10 to 13. A verbal report of the t-test results follows Table 13.

Table 10
Control Group

Pretest and Posttest General Scores for SEI
Numbers, Means, S.D., t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	65	17.661	3.858	*****	*****
Winter	65	19.153	4.024	*****	*****
Spring	65	19.323	3.821	*****	*****
Fall-Winter				-3.57	0.001
Winter-Spr.				0.39	0.698
Fall-Spring				-3.68	0.000

Table 11
Control Group
Pretest and Posttest Social Scores for SEI
Numbers, Means, S.D., t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	65	5.753	1.521	*****	*****
Winter	65	6.153	1.856	*****	*****
Spring	65	6.092	1.998	*****	*****
Fall-Winter				-1.84	0.070
Winter-Spr.				-0.31	0.760
Fall-Spring				-1.48	0.145

Table 12
Control Group
Pretest and Posttest Home Scores for SEI
Numbers, Means, S.D., t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	65	5.553	1.969	*****	*****
Winter	65	5.723	2.132	*****	*****
Spring	65	6.123	1.973	*****	*****
Fall-Winter				-0.71	0.481
Winter-Spr.				1.44	0.154
Fall-Spring				-2.09	0.040

Table 13
Control Group
Pretest and Posttest School Scores for SEI
Numbers, Means, S.D., t-values and Probability

Variable	N	Mean	SD	t-value	Prob.
Fall	65	5.169	1.842	*****	*****
Winter	65	5.015	2.267	*****	*****
Spring	65	5.276	1.916	*****	*****
Fall-Winter				0.68	0.498
Winter-Spr.				1.24	0.221
Fall-Spring				0.47	0.641

As Table 10 indicates, there was a significant difference found between the pretest and posttest means of the General Subtest of the SEI for the Control group. A critical score of 2.00 must be surpassed by the t-value for significance at the 0.05 level for 64 degrees of freedom. The calculated t-value for the Fall-Winter and Fall-Spring comparisons were -3.57 and -3.68 respectively. The critical score was not exceeded for the Winter-Spring comparison. For the Fall-Winter and Fall-Spring comparisons the null hypothesis must be rejected.

Table 11 contains the results of the t-tests performed on the pretest and posttest means of the Social Subtest of the SEI for the Control group. For significance at the 0.10 level, a t-value of 1.671 must be exceeded. This critical level was surpassed only in the Fall-Winter comparison. On this basis, the null hypothesis could not be rejected at the 0.05 level and rejected only at the 0.10

level for the Fall-Winter comparison.

As Table 12 indicates, the pretest and posttest comparisons of the Home Subtest of the SEI exceeded the critical t-value of 2.00 only for the Fall-Spring period. For this comparison a t-value of -2.09 was recorded. The null hypothesis is rejected only for the Fall-Spring comparison at the 0.05 level.

Table 13 contains the results of the t-tests performed on the pretest and posttest means of the School Subtest of the SEI for the Control group. As this table indicates, no changes occurred in this subtest at either the 0.10 or the 0.05 levels.

Research Question 3

Does a difference exist between the pretest and posttest means of the four subtests of the SEI (General, Social, Home, and School) between the Experimental and Control groups.

Null Hypothesis 3

There would be no difference between the pretest and posttest means of the four subtests of the SEI (General, Social, Home, and School) between the Experimental and Control groups.

Presentation of Results

The pretest and posttest means from the four subtests of the SEI (General, Social, Home, and School) were analyzed to determine if differences in self-esteem as measured, existed between the Experimental and Control groups. A two-way analysis of variance was used. A verbal presentation of the findings follows Table 20.

Table 14
Analysis of Variance Table
For Pretest and Posttest Scores
General Subtest of SEI

Source	df	S.S.	M.S.	F-Ratio	Prob.
Between Subjects	144	5347.00			
A	1	99.69	99.689	2.717	0.102
Subjects Wthn gr.	143	5248.00	36.696		
Within Subjects	290	1425.00			
B	2	144.70	72.346	16.397	0.000
AB	2	24.52	12.258	2.7778	0.064
Wthn gr.	286	1262.00	4.41		

Table 15
Scheffe Comparisons of Unweighhted Main Effects
For General Scores

Time	Contrast	F-Ratio	Prob.
Fall-Winter	-0.90866	6.784	0.001
Fall-Spring	-1.39950	16.092	0.000
Winter-Spring	-0.49086	1.980	0.140

Table 16
Analysis of Variance
For Pretest and Posttest Scores
Social Subtest of SEI

Source	df	S.S.	M.S.	F-Ratio	Prob.
Between Subjects	144	1069.00			
A	1	10.78	10.781	1.456	0.230
Subjects Wthn gr.	143	1059.00	7.403		
Within Subjects	290	311.30			
B	2	6.754	3.377	3.227	0 041
AB	2	5.336	2.668	2.550	0.080
Wthn gr.	286	299.300	1.046		

Table 17
Scheffe Comparisons of Unweighted Main Effects For Social Scores

Time	Contrast	F-Ratio	Prob.
Fall-Winter	-0.15000	0.779	0.460
Fall-Spring	-0.30673	3.259	0.040
Winter-Spring	-0.15673	0.851	0.428

Table 18
Analysis of Variance Table For Pretest and Posttest Scores Home Subtest for SEI

Source	df	S.S.	M.S.	F-Ratio	Prob.
Between Subjects	144	1183.00			
A	1	2.160	2.160	0.262	0.610
Subjects Wthn gr.	143	1180.00	8.254		
Within Subjects	290	440.000			
B	2	5.566	2.783	1.856	0.158
AB	2	6.724	3.362	2.242	0.108
Wthn gr.	286	428.900	1.500		

Table 19
Analysis of Variance Table For Pretest and Posttest Scores School Subtest for SEI

Source	df	S.S.	M.S.	F-Ratio	Prob.
Between Subjects	144	1124.00			
A	1	14.16	14.160	1.824	0.179
Subjects Wthn gr.	143	1110.00	7.762		
Within Subjects	290	447.30			
B	2	23.75	11.877	8.389	0.000
AB	2	14.79	7.393	5.222	0.006
Wthn gr.	286	404.90	1.416		

Table 20
Scheffe Comparisons of Unweighted Main Effects For School Scores

Time	Contrast	F-Ratio	Prob.
Fall-Winter	-0.14183	0.515	0.598
Fall-Spring	-0.55385	7.854	0.000
Winter-Spring	-0.41202	4.347	0.014

Table 14 contains the results of a two-way analysis of variance performed on the means of the pretest and posttest means of the General Subtest of the SEI to determine if a difference existed between the Experimental and Control groups. The critical F-ratio that needed to be exceeded for significance at the 0.05 level was 3.91. As Table 14 indicates, Factor A, a comparison of the Experimental and Control groups scores collapsed over time, did not exceed the critical level. The null hypothesis is therefore accepted for Factor A. Factor B, the measure of the effect of time on both the Experimental and Control groups, indicates that a time effect was present. The F-ratio of 16.397 exceeded the critical value forcing the rejection of the null hypothesis for Factor B.

Table 15, the Scheffe Comparisons of Unweighted Main Effects for General Scores, indicates that the change over time is significant only when comparisons are made with the Fall results. Table 15 shows that the Fall-Winter and Fall-Spring comparisons are significantly different. No

change is recorded from Winter to Spring. This indicates a plateau effect and shows that most of the change occurred during the first few months of the study. Figure 3 illustrates that although both the Experimental and Control groups improved in the General Subtest scores, most of the change during the Fall-Winter period can be attributed the the changes in the Control group.

Table 14 indicates that there was a significant AB interaction at the 0.10 level. This interaction can be interpreted to mean that although both the Experimental and Control groups changed, the changes differed. The change between the Experimental and Control groups over time was significantly different at the 0.10 level.

Figure 3

PROFILE OF MEANS

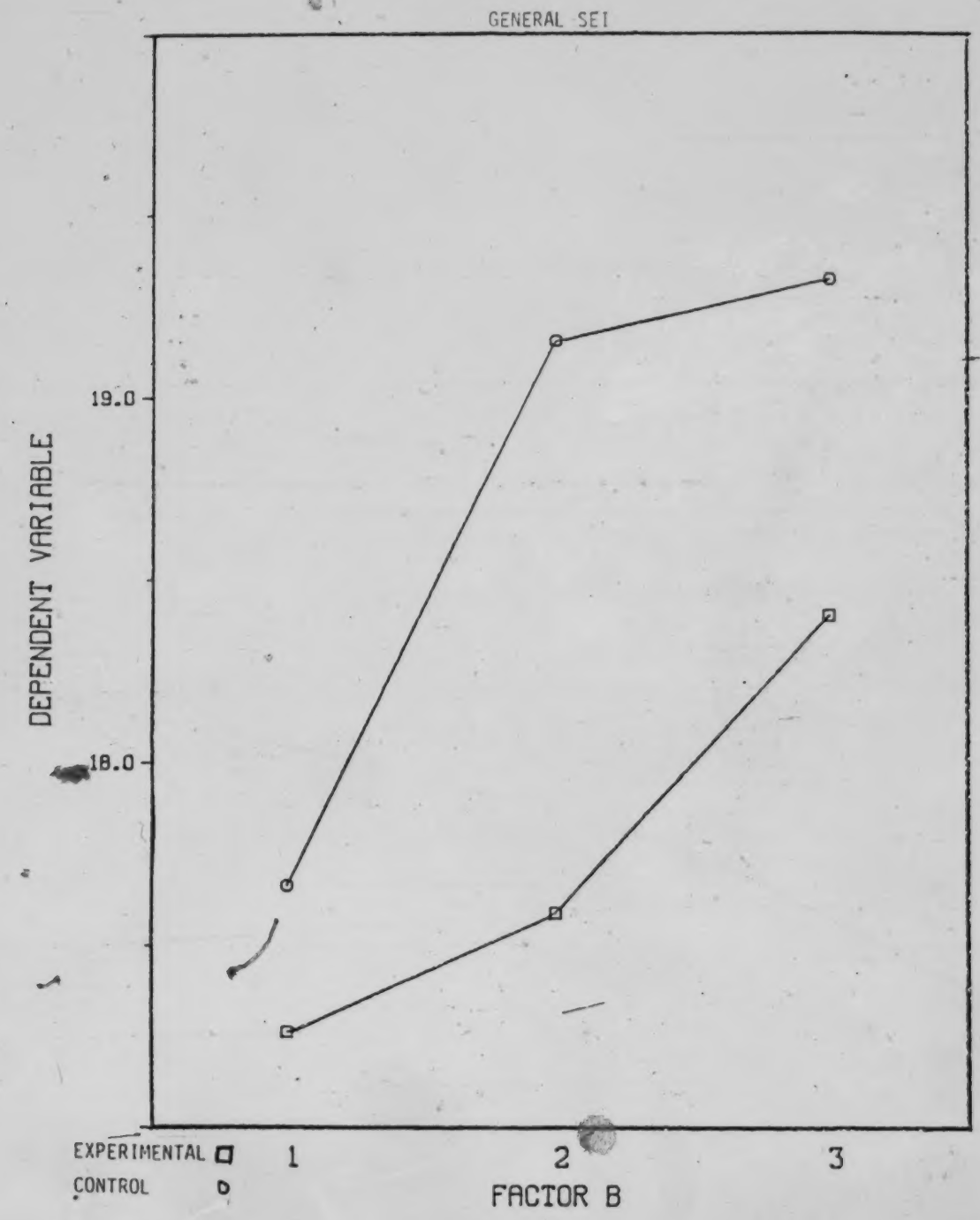


Table 16 contains the results of the analysis of variance performed on the pretest and posttest means of the Social Subtest of the SEI. Factor A, a comparison of the scores of the Experimental and Control group collapsed over time, resulted in an F-ratio of 1.456. This score did not exceed the critical level for significance at the 0.05 level. The null hypothesis is accepted that there is no difference in the main effect (Factor A) when the Experimental and Control groups scores are collapsed over time. Factor B (the time effect) was significant . An F-ratio of 3.227 exceeded the critical level of 3.91. The null hypothesis is therefore rejected.

As Table 17 indicates, only the Fall-Spring comparison is significant. Figure 4 indicates that both the Experimental and Control groups improved in the Social Subtests scores during the study. Both groups experienced periods of decline however. The Experimental group declined during the Fall-Winter period and the Control group declined during the Winter-Spring period.

Table 16 indicates that there was an AB interaction significant at the 0.10 level. This interaction can be interpreted to mean that the change experienced by both the Experimental and Control groups was significantly different.

Table 18 contains the results of the analysis of variance performed on the pretest and posttest means of the Home Subtest of the SEI. As Table 18 indicates, there was no change for Factor A, the scores for the Experimental and Control groups collapsed over time, or for Factor B, the time effect. The AB interaction was similarily unsignificant.

A difference in the trend of the scoring on the subtests of the SEI can be noted at this point. The Control group consistently scored higher in the Fall on the Total SEI and all the subtests of the SEI with the exception of the Home Subtest. On the Home Subtest, the Experimental group scored higher prior to the beginning of the study. Figure 6 illustrates the means of the Home Subtest.

Figure 4

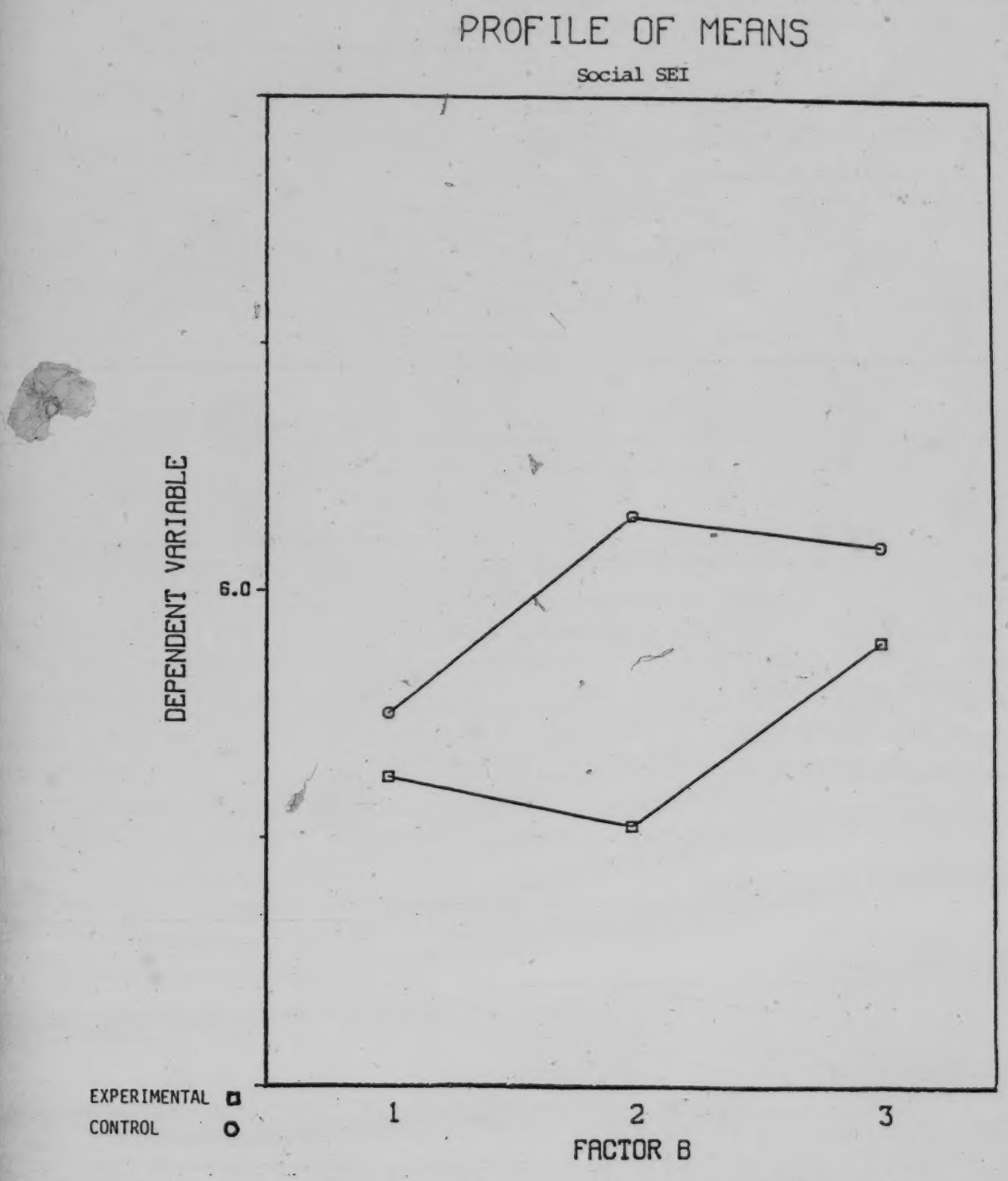

PROFILE OF MEANS
Social SEI
DEPENDENT VARIABLE
6.0
EXPERIMENTAL
CONTROL
1
2
3
FACTOR B

Table 19 contains the results of the analysis of variance performed on the pretest and posttest means of the School Subtest of the SEI. As Table 19 indicates, Factor A, the scores for the Experimental and Control groups collapsed over time, did not exceed the critical level for significance at either the 0.10 level or the 0.05 level. Table 20, containing the unweighted main effects for the School Subtest, indicates apparently no change from Fall to Winter. Change was significant in the Fall-Spring and Winter-Spring comparisons however. This analysis is misleading. As Figure 6 indicates, the Experimental group showed a sharp and steady increase throughout the study. The Control groups scores declined during the Fall to Winter period. The Control group scores then rose in the Spring to surpass the level recorded in the Fall.

Factor B, the time effect, has an F-ratio of 8.389 which exceeds the level for significance at the 0.05 level. The null hypothesis that no change would occur over time is rejected.

Figure 5

PROFILE OF MEANS

HOME SEI

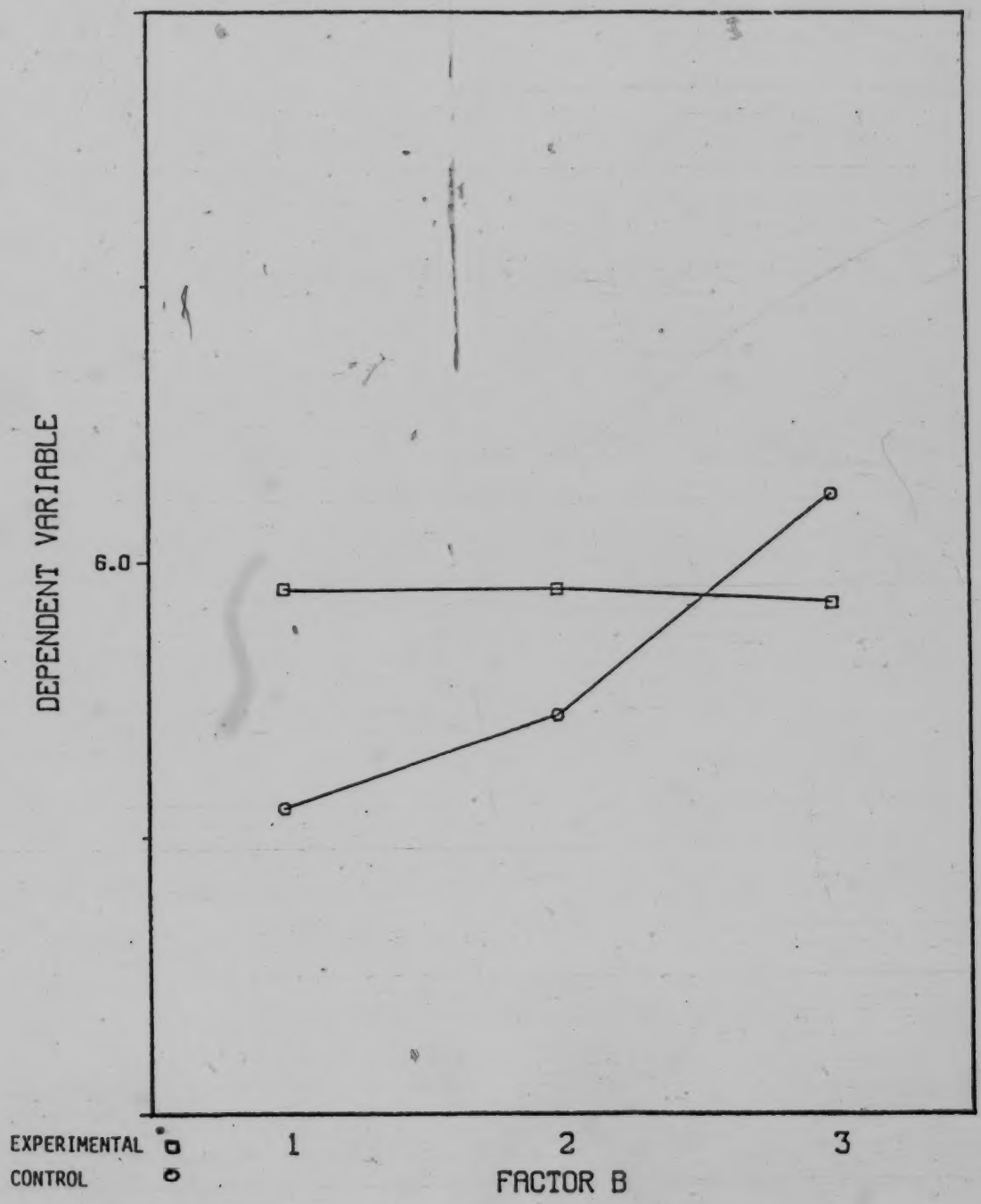


Table 19 also indicates that a significant AB interaction was present. A significant AB interaction means that the manner in which the Experimental and Control groups changed during the study was significantly different from one another. The F-ratio of 5.222 exceeded the critical F-value for significance at the 0.05 level. The null hypothesis is rejected.

Research Question 4

Does a difference exist in self-esteem scores between the "low School group" and the "high School group" on subtests of the SEI (General, Social, Home, and School).

Null Hypothesis 4

There would be no difference in self-esteem scores between the "low School group" and the "high School group" on the subtests of the SEI.

Presentation of Results

For purposes of this analysis, the students in the Experimental and Control groups were regrouped on the basis of their performance on the School Subtest of the SEI. Students scoring fifty percent or more of the School Subtest questions negatively were placed in the "low School group". Students scoring negatively on less than fifty percent of the School Subtest questions were placed in the "high School group".

As Table 21 indicates, students in the "low School group" scored lower than the "high School group" on all the subtests of the SEI as well as the Total SEI at all three test times. This indicates that students who felt negatively about themselves on the School subtest were also more pessimistic about themselves in the other subtests of the SEI than were students in the "high School group"

Table 21 also indicates that the School scores are the lowest of all the areas measured by the SEI. This observation holds for both the Experimental and Control groups. The "high School groups" in both the Experimental and Control groups scored lowest on the Social subtest scores with the School subtest scores placing second lowest. This may indicate that in school, it is generally more difficult for students to be accepting of themselves than it is in the other subtest areas measured by the SEI.

Table 21
High and Low School Group
Means Table by Test Period for SEI Subtests

Test	Group	Time	Low	High
School				
	Exp.	Fall	3.121	6.383
		Winter	4.061	6.468
		Spring	5.333	6.532
	Con.	Fall	3.320	6.325
		Winter	3.560	5.925
		Spr.	4.480	5.775
General				
	Exp.	Fall	15.667	18.383
		Winter	16.303	18.489
		Spring	17.000	19.383
	Con.	Fall	16.160	18.600
		Winter	18.400	19.625
		Spring	18.760	19.675
Social				
	Exp.	Fall	5.545	5.681
		Winter	5.424	5.596
		Spring	5.727	6.021
	Con.	Fall	5.000	6.225
		Winter	5.920	6.300
		Spring	5.960	6.175
Home				
	Exp.	Fall	5.333	6.383
		Winter	5.364	6.362
		Spring	5.333	6.340
	Con.	Fall	4.760	6.050
		Winter	5.320	5.975
		Spring	6.040	6.175

Table 22
Distribution of Students
In Low and High School Groups for SEI

Group	N	Overall Low	Overall High	%Low	%High	Of Low Group %Male	%Female
Exp.	80	33	47	41.25	58.75	55.32	44.68
Con.	65	25	40	38.46	61.54	52.50	47.50

As Table 22 indicates, 41.25% of the Experimental group and 38.46% of the Control group comprised the "low School group". This figure represents 39.99% of the students involved in this study. Within the "low School group", 55.23% of the Experimental group and 52.5% of the Control group were boys.

Table 23
Analysis of Variance Table
For Pretest and Posttest Scores
School Subtest For SEI Split by School Group

Source	df	S.S.	M.S.	F-Ratio	Prob.
A	1	18.060	18.060	4.411	0.037
B	1	523.641	523.641	127.898	0.001
AB	1	0.117	0.117	0.029	0.866
S-Wthn	141	577.281	4.094		
C	2	40.066	20.033	16.599	0.001
AC	2	13.696	6.848	5.674	0.004
BC	2	61.946	30.973	25.664	0.001
ABC	2	0.536	0.268	0.222	0.801
CS-Wthn	282	340.332	1.207		

Table 24
Analysis of Variance Table
For Pretest and Posttest Scores
General Subtest For SEI Split by School Group

Source	df	S.S.	M.S.	F-Ratio	Prob.
A	1	102.766	102.766	3.021	0.084
B	1	402.571	402.571	11.836	0.001
AB	1	20.925	20.925	0.615	0.434
S-Wthn	141	4795.813	34.013		
C	2	160.591	80.296	18.258	0.001
AC	2	27.317	13.658	3.106	0.046
BC	2	18.613	9.307	2.116	0.122
ABC	2	6.140	3.070	2.116	0.498
CS-Wthn	282	1240.188	4.398		

Table 25
Analysis of Variance Table
For Pretest and Posttest Scores
Social Subtest For SEI Split by School Group

Source	df	S.S.	M.S.	F-Ratio	Prob.
A	1	7.179	7.179	0.974	0.325
B	1	16.754	16.754	2.273	0.134
AB	1	4.255	4.255	0.577	0.449
S-Wthn	141	1039.188	7.370		
C	2	8.829	4.415	4.292	0.015
AC	2	6.450	3.225	3.135	0.045
BC	2	3.945	1.973	1.918	0.149
ABC	2	6.366	3.183	3.095	0.047
CS-Wthn	282	290.066	1.029		

Table 26
Analysis of Variance Table
For Pretest and Posttest Scores
Home Subtest For SEI Split by School Group

Source	df	S.S.	M.S.	F-Ratio	Prob.
A	1	1.809	1.809	0.232	0.631
B	1	75.383	75.383	9.682	0.002
AB	1	2.722	2.722	0.350	0.555
S-Wthn	141	1097.805	7.786		
C	2	8.159	4.079	2.748	0.066
AC	2	9.340	4.670	3.146	0.045
BC	2	6.199	3.099	2.088	0.126
ABC	2	5.303	2.651	1.786	0.170
CS-Wthn	282	418.625	1.484		

In Tables 23 to 27, Factor A represents the data for the Experimental and Control groups collapsed over time. Factor B represents the differences between the "high School group" and the "low School group" as measured by the SEI. By definition, the "low School group" and the "high School group" are different only in the way that they reponded to the questions on the School subtest of the SEI in the Fall. Factor C represents the comparison of the scores at the three different time periods throughout the study.

Table 27
Analysis of Variance Table
For Pretest and Posttest Scores
Total SEI Split by School Group

Source	df	S.S.	M.S.	F-Ratio	Prob
A	1	52.137	52.137	0.456	0.500
B	1	3105.039	3105.039	27.174	0.001
AB	1	20.372	20.372	0.178	0.673
S-Wthn	141	16111.625	114.267		
C	2	594.953	297.476	21.918	0.001
AC	2	39.002	19.501	1.437	0.239
BC	2	257.603	128.801	9.490	0.001
ABC	2	42.487	21.244	1.565	0.211
CS-Wthn	282	3827.375	13.572		

Table 23 repeats some information presented earlier in Table 19 (page 73). Factor A and C information are repeated. As Table 23 indicates, the "high school group" is significantly different from the "low School group" as measured by the School subtest of the SEI. This comparison is represented by Factor B. The "high School group" and the "low School group" were different by definition and are statistically different as well. The AC interaction indicates that the Experimental and Control groups were different over the duration of the study. The critical F-ratio of 3.91 was exceeded by the recorded score of 5.674 revealing significance at the 0.05 level.

Table 28 indicates the origin of this change. The "low School group" (both Experimental and Control groups combined) increased their scores over the duration of the

study. The "high School group" (Experimental and Control groups combined) School subtest scores decreased over time.

Table 28
Group Means Over Time

Group	Fall	Winter	Spring
Low	3.320	3.560	4.480
High	6.325	5.925	5.775

The increase in School subtest scores on the SEI by the "low School group" resulted from increases on the part of the Experimental and Control groups (see Table 29). The decline in the combined scores of the School subtest for the "high School group" is primarily the result of declining scores on the part of the Control group. As Table 29 indicates, the Control "high School group" steadily declined from the Fall to the Spring. The Experimental "high School group" increased slightly throughout the study.

Table 29
Group Means Over Time

Group	Fall	Winter	Spring
Exp. High	6.383	6.468	6.532
Exp. Low	3.121	4.061	4.966
Cont. High	6.325	5.925	5.775
Cont. Low	3.320	3.560	4.480

Table 28 also indicates that while both the Experimental and Control "low School groups" improved over time, the Experimental "low School group" had an improvement that was exactly double that of the Control "low School group". Table 30 indicates that the difference between the Experimental and Control "low School groups" was significnat at the 0.10 level.

Table 30
Analysis of Variance Table
For Pretest and Posttest Scores
For School Subtest
Between Experimental and Control Low School Groups

Source	df	S.S.	M.S.	F-Ratio	Prob.
Low-Low	1	6.327	6.327	1.514	0.224
S-Wthn	56	233.998	4.179		
Time	2	83.307	41.654	28.697	0.001
Group-Time	2	8.158	4.079	2.810	0.064
BS-Wthn	112	162.569	1.452		

Factor A and C information is repeated in Table 24 from Table 14 (page 72). There was no difference when comparing the General subtest scores between the

Experimental and Control groups when their scores were collapsed over time (Factor A). Factor C, the time effect was significant. Table 24 introduces Factor B, the comparison of the General subtest scores between the "low School group" and the "high School group". It was noted earlier that by definition the "high School group" and the "low School group" were different on the basis of their performance on the School subtest scores of the SEI only. As Table 24 indicates, the F-ratio of 11.836 exceeds the critical value of 3.91 and is significant at the 0.05 level. The "low School group" recorded lower scores on the General subtest of the SEI than did the "high School group" in both the Experimental and Control groups at each test period (see Table 31).

Table 31
General Subtest
Group Means Over Time

Group	Fall	Winter	Spring
Exp. High	18.383	18.489	19.383
Exp. Low	15.667	16.303	17.000
Cont. High	18.600	19.625	19.675
Cont. Low	16.160	18.400	18.760

Table 25 provides comparisons of the scores recorded by "high School group" and the "low School group" on the Social subtest of the SEI. Factor A (Experimental and Control group scores collapsed over time) has an F-value of

0.974 which does not exceed the critical value of 3.91 for significance at the 0.05 level. The time effect (Factor C) was significantly different over the three test periods. The recorded F-value of 4.292 did exceed the 3.91. As Table 25 indicates, Factor B, the comparison of the Social subtest scores of between the "low School group" and the "high School group", were not different. This is the only subtest of the SEI in which the "low School group" and the "high School group" did not differ. The F-value of 2.273 did not exceed the critical value for significance at the 0.05 or 0.10 level.

Table 26 contains a comparison of the Home subtest scores of the SEI. Factor A (Experimental and Control group scores collapsed over time) do not differ. The critical F-ratio of 3.91 needed for significance at the 0.05 level was not exceeded by the recorded score of 0.232. Factor B (comparison of the "high School group" and the "low School group") was significantly different. The F-ratio of 9.628 exceeds the critical value for significance at the 0.05 level. Factor C (the time effect) is not different at the 0.05 level. This is a deviation from the trend observed in the other subtests of the SEI.

Table 27 presents the data from the Total SEI. The Total SEI is a combination of the four subtests (General,

Social, Home, and School) previously reported. As Table 27 indicates, the Experimental and Control groups (Factor A) do not differ when their scores are collapsed over time. The critical F-ratio of 3.91 was not exceeded by the recorded score of 0.456. Factor B, the comparison of the "high School group" and the "low School group", indicates that there is a difference in the manner in which the two groups perceive themselves in Total self-esteem as measured by the SEI. Those students who view themselves negatively on the School subtest of the SEI also see themselves less positively overall in comparison with students in the "high School group". Factor C (the time effect) indicates that there was a significant change in the Total SEI scores over the duration of the study. The critical F-ratio of 3.91 was exceeded by the recorded score of 9.490 to indicate significance at the 0.001 level.

Research Question 5

Do boys record significantly different scores from girls on the Total SEI and on the subtests of the SEI (General, Social, Home, and School)?

Null Hypothesis 5

No differences exist between the boys' scores and the girls' scores on the Total SEI or on the subtests of the SEI (General, Social, Home and School).

Presentation of the Results

Table 32 is a grouping of the data from the Analysis of Variance Tables specifically pertaining to gender. The data that is presented is Factor B (Gender differences collapsed over time). The BC interaction (Gender differences with time as a factor) is also presented. Table 32 indicates that there are no differences significant at the 0.05 level for Factor B. The General and Social subtests of the SEI report differences significant at the 0.10 level indicating that there may be a trend toward a difference within these two areas. The Gender-Time interaction was not significant at the 0.10 level for any of the subtests or for the Total SEI. This is a deviation from the trend reported earlier in this section. Time has been frequently linked to significant change during this study.

Table 32
Gender Splits SEI
For Total SEI and Subtests
Collected from the Analysis of Variance Tables

Test	Source	S.S.	M.S.	F-Ratio	Prob.
General	Gender	108.449	108.449	2.977	0.087
	Gen/Time	0.415	0.207	0.046	0.995
Social	Gender	22.243	22.243	3.030	0.084
	Gen/Time	0.328	0.164	0.155	0.857
Home	Gender	5.666	5.666	0.684	0.410
	Gen/Time	1.451	0.726	0.487	0.615
School	Gender	7.118	7.118	0.911	0.342
	Gen/Time	1.693	0.847	0.596	0.552
Total	Gender	220.301	220.301	1.625	0.205
	Gen/Time	37.316	18.658	1.295	0.862

While differences between the genders were not significant, Table 33 indicates that a difference did exist between the Experimental group boys and Control group boys when School subtest scores on the SEI are compared. Similar differences were found to exist between the Experimental group girls and the Control group girls. The change over time favors the Experimental group. On an eight point scale that comprised the School subtest, the Experimental boys increased their score 1.2 points or 24.97 percent over the duration of the study. The Control group boys' mean score increased 0.1 points or a 1.96 percent change. The Experimental girls increased 0.7 points compared to 0.2 points for the Control girls. This represents a 13.07 percent and a 3.79 percent change respectively.

Table 33
Means Table, School Scores
Split by Gender and by Group

	Fall	Winter	Spring
Experimental			
Males	4.804	5.261	6.065
Females	5.353	5.765	6.000
Control			
Males	5.086	4.943	5.171
Females	5.267	5.100	5.400

Canadian Test of Basic Skills

The purpose for administering the Canadian Test of Basic Skills (CTBS) was to establish whether or not levels of academic accomplishment were sufficiently high enough to have influenced any potential change that may have occurred in self-esteem during the study. Kifer (1973) used the criteria of the upper one fifth of the class for being the level that be believed was needed to affect self-esteem. It has been shown in this study that the levels of self-esteem for the Experimental and Control groups increased. Although the change on the Total SEI was not significant, there was a significant difference observed for the Experimental "low School group" and for the males and females in the Experimental group.

Table 34 indicates the range of scores on the eight subtests of the CTBS (Vocabulary, Reading, Spelling, Capitalization, Punctuation, Usage, Math Concepts, and Math Problems) for the "low School group". Figures for both the

Experimental and Control groups are presented. The range is expressed in percentage terms. This indicates the percentage of students scoring below a given level. The two levels being considered in Table 34 are the 66th percentile and the 75th percentile. Both of these scores are more rigid than the precedent set by Kifer (1973). The number of students represented by these figures is fifty-eight in the Experimental and Control groups together. Thirty-three students were in the Experimental group and twenty-five students were in the Control group.

Table 34

Distribution of Low School Scores

For The Canadian Test Of Basic Skills

Test	Group	Below 66	Below 75
Vocabulary	Experimental	71.0%	93.6%
	Control	81.8%	88.0%
Reading	Experimental	76.7%	83.3%
	Control	80.0%	92.0%
Spell	Experimental	96.6%	100.0%
	Control	91.7%	100.0%
Capitals	Experimental	76.7%	90.0%
	Control	95.8%	100.0%
Punctuation	Experimental	89.7%	93.1%
	Control	95.7%	95.7%
Usage	Experimental	86.7%	93.3%
	Control	78.3%	86.9%
Math			
Concepts	Experimental	75.9%	89.7%
	Control	83.3%	100.0%
Problems	Experimental	81.8%	100.0%
	Control	83.3%	100.0%

From Table 34 it can be seen that well over three-quarters of the students in the low School group

scored below the 66th percentile, on average, on the CTBS. Over 90 percent of these same students on average scored below the 75th percentile. This would indicate that those changes that did occur in self-esteem during the study probably didn't occur because of high academic accomplishment, at least if we are to accept the criteria established by Kifer (1973).

In the following section, a discussion of these findings together with some implications for education and recommendations for future research will be conducted.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS FOR FUTURE STUDY

An overview of the research and interpretations of the study is made in this chapter. A summary, discussion, and recommendations for further study concerning the feedback technique used in this study to enhance the self-esteem of students is presented.

Summary

The purpose of this study was to investigate the impact of Brophy's (1981) praise techniques on grade six students' self-esteem. The study was initiated in order to explore the link between self-esteem and academic achievement. The existing research supports that relationship although a cause and effect relationship has not yet been clearly established. The rationale for the interventionist nature of the study was also supported in theory by Brownfain (1952), Syngg and Combs (1959) and Coopersmith (1967).

The position indicating that "significant others", such as coaches, teachers, peers and persons in authority

can have an influence on the self-esteem of their subordinates has been well documented. This study specifically examined the effect that "significant others" might have when conditions to optimize their effects were introduced in a specially designed program. While most educators would support the idea that students require positive feedback in order to feel good about themselves, few systematic feedback attempts have been reported in the literature. Those that have been reported do not investigate the effects of a systematic feedback program on self-esteem.

The purpose of this study was to attempt to increase student self-esteem a) by having the classroom teacher follow specific guidelines to provide feedback to students (Brophy, 1981) and b) by focusing the feedback on student accomplishment in skill areas as opposed to primarily high academic achievement.

Each curriculum guideline (Language Arts, Mathematics, Environmental Studies, Art, Physical Education, and Library) was examined for skills that a student would use when working within the content areas. Once identified, these skills were arranged to form a series of checklists (see Appendix B) according to subject area. The purpose of selecting specific skills was to have a vehicle which to

shows students exactly what they had done in a variety of areas without reference, necessarily, to how well they had performed the skill. When students had performed a skill in a commendable manner, or when they had shown growth in a skill area based on their past performance, this was considered to be a praiseworthy occurance and was brought to the student's attention. Where feedback was given that dealt with achievement, past performance was used as the measure of comparison so that the predominant tone of the feedback was positive and realistic for the student.

Brophy's (1981) guidelines for providing feedback were followed to show students the personal progress that each had made in the skill areas. The focus of the feedback was on the skills that a student had accomplished. Students received feedback on variable schedules that reflected individual student progress, individual student need, and curriculum unit activities. The scheduling of the feedback varied from one class to another and varied between students.

The sample in this study consisted of 145 grade six subjects of which 85 students comprised the Experimental group and 60 students made up the Control group. The subjects wrote the Coopersmith Self-Esteem Inventory (SEI) three times during the study, once each in the Fall, Winter

and Spring. The first test produced the pretest independent variables while the remaining two test periods served as the posttest dependent variables. The Canadian Test of Basic Skills (CTBS) was also administered in the Spring. Throughout the duration of the study, a systematic feedback program (see Brophy, 1981) that focused on what the students had accomplished was being administered by the teachers in the Experimental group. Correlated t-tests and a two-way analysis of variance were used in the analysis of the data to determine if differences attributable to the Experimental program developed.

Discussion

This discussion is based on the analysis of data resulting from this study. Because of the field nature of the study, interpretations were made on those variables which showed significance at the 0.10 level or better.

There were no differences between the Experimental and Control groups at the start of the study. Using a correlated t-test, requiring a t-value of 1.960 for significance at the 0.05 level, and 1.658 at the 0.10 level, Table 3 shows that there was no difference between the Experimental and Control groups in the SEI Total test or in any of the subtests of the SEI.

Hypothesis 1

Hypothesis 1 was established to determine if there was a difference between the pretest and posttest Total SEI scores for the Experimental and Control groups. Table 4 shows that there was no change in the main effect between the pretest and the posttest scores on the Total SEI.

While there was no difference in the main effect throughout the duration of the study, there was a significant time effect, Factor B. The change over time is a common trend that appears frequently within this study. This indicates that both the Experimental and Control groups changed over the duration of this study. The observation that there was no main effect between the Experimental and Control groups indicates that both groups changed in a similar manner. Table 5 (p.62) indicates that there was a significant change between each test period. Figure 3 (p.77) indicates that a positive change has been noted in both the Experimental and Control groups throughout the study. Because the Total score on the SEI was the sum of the four subtests (General, Social, Home, School) it cannot be stated with assurance at this point what area was responsible for the overall increase in the Total SEI score or, whether a combination of areas were contributing to the increase. This issue will be

investigated further in this chapter.

Hypothesis 2

Hypothesis 2 was established to determine if differences existed within the Experimental group and within the Control group on the four subtests of the SEI (General, Social, Home, School). Tables 6-9 contain the pertinent information concerning the Experimental group and Tables 10-13 contain the data pertaining to the Control group. From Tables 6 and 7 it can be seen that changes did occur in the Experimental group in General and Social scores but only in the later half of the study. In both cases, no change had occurred during the Fall-Winter test period but changes were significant when the Spring scores were considered. Table 8 indicates that no changes occurred for the Experimental group in the Home scores during the study. Table 9 indicates that for the Experimental group, significant changes occurred throughout the program in School scores and were not limited to one test period.

The data for the Control group are almost directly opposite those described for the Experimental group. Significant differences were also found in the General and Social subtests for the Control group, however the changes

occurred during the first half of the study as opposed to the latter half as was the case with the Experimental group. The Control group showed an increase in Home scores that was significant when comparisons were made from Fall to Spring. Conversely, the Experimental group experienced no changes during the course of the study in the Home subtest. The Control group also differed from the Experimental group in School scores. While the Experimental group recorded significant changes throughout the study, the Control group as a whole recorded no changes at all.

These findings are difficult to explain. If one was to assume that the Experimental program was the cause of the increase in the School scores, then it might be argued that a carryover effect could be causing the increase in the General and Social scores. However, in light of the fact that the Control group did not experience an increase in School scores, and the scores for this group increased in the first half of the study without this influence, it is not possible to make this claim. For the Control group, it may be said that some unknown factors were at work affecting the General, Social and Home self-esteem scores of the subjects. Correspondingly, it can be noted that the Experimental group had increases in the General and Social subtests in the second half of the study, and gains

throughout the study in the School scores. There is no evidence to suggest that the gains in the General and Social subtests were linked to the results of earlier gains in the School scores. Based on the data found in Table 9, one might state that the Experimental program may have had an influence in increasing the School self-esteem levels of the participants. This claim will be postponed until more evidence is examined later in this chapter.

Hypothesis 3

Hypothesis 3 was established to determine if any differences existed between the Experimental group and the Control group on the four subtests of the SEI (General, Social, Home, School). Tables 14-20 contain the pertinent information pertaining to this question. From these tables it can be seen that there was no main effect for any of the four subtests at the 0.10 level. This indicates that there is no difference between the Experimental and the Control groups on any of the four subtests. Although no main effect was recorded for any of the four subtests, there was a time effect in each case except for the Home scores. This indicates that both groups changed over the course of the study. From the Scheffe Comparison tables for each subtest, it can be seen that the changes that did occur were positive. The observation that no main effect was

recorded in light of the changes over time indicates that both the Experimental group and the Control group recorded changes of a similar nature.

Hypothesis 4

Hypothesis 4 was established to determine if a difference existed between the "low School group" and the "high School group" on self-esteem scores obtained on the four subtests of the SEI (General, Social, Home, and School).

For purposes of this analysis, the students in the Experimental and Control groups were regrouped on the basis of their performance on the School subtest of the SEI. This was done to determine if students with low School self-esteem responded differently to the Experimental program than students with high School self-esteem. Students scoring fifty percent or more of the School subtest questions negatively were placed in the "low School group". Students scoring negatively on less than fifty percent of the School subtest questions were placed in the "high School group".

From Table 21 two points can be noted. First, in every case for both the Experimental and Control groups, those students in the "low School group" scored lower than

the "high School group" on all the subtests of the SEI as well as the Total SEI test at all three test times. This may indicate that students who regarded themselves negatively in an academic sense also regarded themselves more negatively than students in the "high School group" in every area measured by the SEI. This may be for one of two possible reasons. It may be that students who generally felt poorly about themselves carried this feeling with them into the classroom. Conversely, it may be that students who regard themselves negatively in school also see themselves negatively in other areas. There is insufficient evidence from this study to make any conclusions in this regard.

Secondly, the School scores are the lowest of all the subtests for both the Experimental and Control groups, and the "high School group" and the "low School group" with one exception. The "high School group" in both the Experimental and Control groups scored lowest on the Social scores with the School scores being second lowest. This observation may indicate that schooling is more difficult for students generally to feel good about than are the other areas measured by the subtests.

From Table 22 it can be seen that 41.25 percent of the Experimental group and 38.46 percent of the Control group

scored in the low School group at the first testing of the study. This figure represents a large number of students who were feeling poorly about themselves in an academic setting. Numerous studies (Shaw, 1961; Fink, 1962; Combs, 1963; Durr and Schmatz, 1964; Farls, 1967; Williams and Cole, 1968) have indicated that low self-esteem is related to low academic achievement. It may be important for teachers to be aware of which class members have poor self-esteem so that provisions can be made to deal with this in the daily process of teaching. The Experimental program implemented in this study was an attempt in that direction.

Tables 23-27 present the data representing the four subtests split into "low School group" and "high School group". In each of the four subtests, it can be seen that Factor B (the difference between the high and low School groups) is significant with the exception of the Home scores. The Total SEI is also significantly different for Factor B since this is the sum of the four subtests. Factor B must be different in the School subtest since by definition, this is the basis for the formation of the high and low School groups.

It was noted in Chapter IV that the AC interaction (main effect interacting with time) on Table 23 was

significant indicating that the Experimental and Control groups were different over the course of the study. Further investigation (Table 28) revealed that the high School scores declined during the same period. Table 29 indicates that both "low School groups", Experimental and Control, showed increases over the eight month period. The Experimental "high School group" showed a slight increase while the Control "high School group" showed a slight decrease during the same period of time.

The question of why both the Experimental and Control "low School groups" showed increases still remains to be answered. It may possibly be explained by the phenomenon of the significant other, in this case the teacher. In the initial stages of the research, it was difficult to locate volunteers to adopt the role of teachers for the Experimental and Control groups. Eventually six teachers were found and agreed to be part of the study. It is conceivable that the six teachers who volunteered to be part of an eight month study were "special" as teachers and as people interested in their students. The quality that these teachers inherently possessed and the manner in which they intuitively interacted with their class may be accountable for the rise in self-esteem scores of both the Experimental and Control "low School groups".

Table 29 indicates that while both the Experimental "low School group" and the Control "low School group" increased their School scores over the course of the study, the Experimental "low School group" showed twice the increase of the Control "low School group". Table 30 indicates that this represents a level of probability that is significant at the 0.10 level. It is possible that this trend may be accounted for by the instructor influence plus the Experimental program of systematic feedback that was the basis for this study.

The observation that the "low School groups" increased their School self-esteem scores is in keeping with the theory of Syngg and Combs (1959) and Brophy and Evertson (1976). Syngg and Combs (1959) theorized that while individuals strive for inner self-consistency, individuals with low self-esteem may strive to improve the outlook that they have of themselves. In many studies, (Brophy and Evertson, 1976; Good, Ebmeier and Beckerman, 1978; Anderson, Evertson and Brophy, 1979; Martin and Veldman, 1980) it was found that praise techniques correlated positively only with those students who were low achievers. Many authors (Shaw 1961; Fink, 1962; Combs, 1963; Durr and Schmatz, 1964) have written that low academic achievement correlates positively with low levels of self-esteem. The findings of this study support these earlier works.

Students recording the greatest gains in self-esteem scores according to the SEI were those who initially scored low in self-esteem. This may be explained in two possible ways. First, as indicated above, the low self-esteem students are those who are most likely to improve according to the literature cited (Brownfain, 1952; Syngg and Combs, 1959; Coopersmith, 1967). And secondly, due to the restriction imposed by the ceiling of the tests administered, the students in the "high School group" did not have as much room for growth as their peers in the "low School group".

Brownfain (1952) and Coopersmith (1967) maintained that individuals who viewed themselves negatively were more likely than people who saw themselves in a positive light to be situation dominated and influenced. People who had a lower self-esteem, it was argued, would feel a heightened sense of self-esteem in a favorable situation. This is in keeping with the findings of this study. In both the Experimental and Control groups, those students who experienced the most change were those who were in the "low School group". These students were also in the low groups in the other subtest areas as well.

Hypothesis 5

Hypothesis 5 was established to determine if boys

recorded significantly different scores than girls on the Total SEI and on the subtests of the SEI (General, Social, Home, and School). From Table 31 it can be seen that there are no differences significant at the 0.05 level for Gender. As noted in Chapter IV, in most of the tables cited, there was a Time effect. There was however, no Gender-Time interaction. The absence of a Time effect was a noticeable departure from the trend established throughout this study. There is no explanation for this shift that the author can propose at this time.

One area where Gender differences were recorded was between the Experimental group boys and the Control group boys School scores, and between the Experimental group girls and the Control group girls School scores. In both cases, the gains recorded by the Experimental group dramatically exceeded those gains recorded by the Control group. While both groups recorded gains over the duration of the study, the Experimental group boys increase was twelve times that recorded by the Control group boys, while the Experimental group girls recorded an increase that was three and a half times greater than the Control group girls. These differences may reflect the impact of the Experimental program on the Experimental group participants.

Canadian Test of Basic Skills

The purpose for administering the Canadian Test of Basic Skills (CTBS) was to determine if any changes in self-esteem by the participants could be attributed to high levels of academic achievement. Kifer (1973) used the criteria of the upper one fifth of the class as the level that he believed necessary to positively affect self-esteem. As noted in Chapter IV, in this study, the sixty-sixth and seventy-fifth percentiles were used as critical levels of achievement on eight academic subtests of the CTBS (Vocabulary, Reading, Spelling, Capitalization, Punctuation, Usage, Math Concepts and Math Problems). The scores of the "low School group" were examined on each subtest to determine what percentage of this group scored below each of the two critical levels just mentioned. If one accepts the level of the upper one fifth of the class as established by Kifer (1973) as valid, then it can be said that as a group, the gains made by both the Experimental group and the Control group in self-esteem are likely not attributable to high levels of academic achievement (see Table 34).

The scores recorded on the CTBS by both the Experimental and Control groups lend support to the notion that the gains in self-esteem are more likely attributable

to positive instructor influence in both groups, in addition to Experimental program factors in the case of the Experimental group.

Implications for Education

From this study, several implications for educational practise may be suggested:

1) the role of the significant other, as noted by other authors (Mead, 1948; Thomas, 1980) appears to be an important factor in influencing the self-esteem of grade six students, even in light of weak academic performances;

2) based on suggestion 1, the criteria used as a basis for permitting teacher candidates into the teacher training institutions should not be primarily academic (Fullen and Connelly, 1987), but should included personal qualities that may be identified in some future study. These qualities would be those that would come to be known as essential for positively influencing the self-esteem of students;

3) educators should provide feedback to students that recognizes areas other than primarily high levels of academic achievement;

4) educators must become sensitive to the increasing number of students who are experiencing low self-esteem as they progress through the school system and address this

problem. Proven techniques for enhancing student self-esteem should become part of every teacher's training.

Recommendations for Future Study

Based on the findings, the following recommendations appear to be appropriate:

1) A study should be conducted using a similar approach to the one used in this study but differing in the instrument to measure self-esteem. A different instrument should be designed to specifically measure academic self-esteem.

2) This study should be replicated with both volunteer teachers and draftees in an attempt to determine more precisely the impact of the Experimental program and the impact of the significant other.

3) A study should be conducted to identify the personal qualities that distinguish teachers who are positive influences on the self-esteem of their students.

4) A study should be conducted which follows a replication of this study, to determine the subsequent self-esteem levels of the Experimental group each year until the end of high school to determine if the changes are stable and under what conditions they may change.

5) Studies of this nature need to be conducted at various levels of education to determine what techniques

are most appropriate for enhancing the self-esteem of students at various levels of education.

In conclusion, this study has identified possible techniques of influence on the self-esteem of grade six students. Additional research must be conducted before firm conclusions can be made with regard to specific feedback programs and their influence on the self-esteem of students.

BIBLIOGRAPHY

Allport, G.W. Pattern and Growth in Personality. Toronto:Holt, Rinehart and Winston, 1961.

Anderson, L., Evertson, C., and Brophy, J. "An Experimental Study of Effective Teaching in First Grade Reading Groups." Elementary School Journal 1979, 79, 193-223.

Ballif, B.L. "The Significance of the Self-Concept in the Knowledge Society." Paper presented at Self-Concept Symposium, Boston, 1978.

Bills, R.E. "Sex, Race, and Developmental Differences in Self-Concept Variables as Shown by the Index of Adjustment and Values." Paper presented at Self-Concept Symposium, Boston, 1978.

Bloom, B.S. "Affective Outcomes of School Learning" Phi Delta Kappan. 1977, 59, 193-98.

Brookover, W.D., Erickson, E.L., Edsel, L., and Joiner, L.M. Self-Concept of Ability and School Achievement. Report presented at the Meeting of the American Education Research Association, Los Angeles: Feb. 1965.

Brophy, J. "Teacher Praise:A Functional Analysiis." Review of Educational Research 1981, 51, 5-32.

Brophy, J. "On Praising Effectively." The Elementary School Journal 1981a, 81, 269-278.

Brophy, J. and Evertson, C. Student Characteristics and Teaching. New York:Longman, Inc., 1981.

Brown, J. and Weiner, B. "Affective Consequences of Ability Versus Effort Ascriptions:Controversies, Resolutions, and Quandries" Journnal of Educational Psychology 1984, 76, 146-158.

Brownfain, J.J. "The Stability of Self-Concept as a Dimension of Personality. Journal of Abnormal and Social Psychology, 47, 1952.

Buros, O.K. The Seventh Mental Measurements Yearbook Highland Park, New Jersey:Gryphon Press, 1972.

Campbell, D.T. and Stanley, J.C. Experimental and Quasi-Experimental Designs for Research. Rand McNally and Co., Chicago, 1963.

Lindquist, E.F., and Hieronymus, A.N. Canadian Test of Basic Skills Toronto:Nelson and Sons, Ltd. 1979.

Cohen, D.H. Observing and Recording the Behavior of Young Children. New York: Bureau of Publications, Columbia University, 1958.

Combs, A.W. "The Measurement of Self-Concept and Self-Report" Educational and Psychological Measurement. 1963, 23, 493-500.

Coopersmith, S. The Antecedents of Self-Esteem. San Fransico: W.H. Freeman andCo., 1967.

Coopersmith, S. Self-Esteem Inventories Palo Alto, Calf.:Consulting Psychologists Press, Inc., 1981.

Covington, M. Self-Worth and School Learning New York:Holt Rinehart, and Winston, 1976.

Covington, M., "The self-worth theory of achievement motivation:findings and implications." Elementary School Journal 1984, 85, 5-20.

Covington, M.V. and Omelich, C.L. "Effort:The Double-Edged Sword in Schhool Achievement." Journal of Educational Psychology 1979, 71, 169-182.

Covington, M., and Omelich, C.L. "As failures mount:affective and cognitive consequences of ability demotion in the classroom." Journal of Educational Pychology, 1981, 73, 796-808.

Covington, M., and Omelich, C.L. "Controvercies and consistencies:a reply to Brown and Weiner." Journal of Educational Psychology 1984, 76, 159-168.

Davidson, H.H. and Land, G. "Children's perceptions of their teachers' feelings toward them related to self-perception, school achievement and behavior. Journal of Experimental Education. 1960, 29, 107-118.

Durr, W.K. and Schmatz, R..R. "Personality Differences Between High Achieving and Low Achieving Gifted Childrren." Reading Teacher 1964, 17, 251-254.

Dweck, C.S. "Theories of intelligence and achievement motivation." in S. Paris, G. Olson, and H. Stevenson (eds) Learning and Motivation in the Classroom Hillsdale, N.J.:Erlbaum, 1981.

Farls, R.J. "High and Low Achievement of Intellectually Average Intermediate Grade Students Related to Self-Concept and Social Approval". Dissertation Abstracts International. 1967, 28, 1205-A.

Fink, M.B. "Self-Concept as It Relates to Academic Achievement". California Journal of Educational Research. 1962, 13, 57-62.

Fullen and Connelly, Teacher Education in Ontario, OISE Press, Toronto, 1987.

Gergen, K.J. The Concept of Self. Toronto: Holt, Rinehart and Winston, 1971.

Good, T., Ebmeier, H., Beckerman, T. "Teaching mathematics in high and low SES classrooms:An empirical comparison." Journal of Teacher Education 1978, 29, 85-90.

Harari, O., and Covington, M. "Reactions to achievement behavior from a teacher and student perspective:a developmental analysis." American Educational Research Journal 1981, 18, 15-28.

Henry, W. Effective Teaching. Washington, U.S. Department of Education, 1986.

James, W. The Principles of Psychology. Vol. I. New York:Henry Holt and Company, 1904.

Jersild, A.T. In Search of Self. New York: Bureau of Publications, 1952.

Kifer, E. "The Effects of School Achievement on the Affective Traits of the Learner". Paper presented at the Annual Conference of American Educational Research Association, New Orleans, 1973.

Lewis, G.M. "Interpersonal Relations and School Achievement". Children 1964, 2, 235-236.

Martin, J., and Veldman, D.J. "Within v class relationhips between students achievement and teacher behavior." American Educational Research Journal 1980, 17(4), 479-490.

McClelland, D.C. "Toward a theory of motive acquisition." American Psychologist 1965, 20, 321-333.

Mead, G.H. Mind, Self, and Society. Chicago: University of Chicago Press, 1948.

Mitchell, J.V. The Ninth Mental Measurement Yearbook Lincoln, Nebraska:University of Nebraska Press, 1985.

Morse, W.G. "Self-Concept in the School Setting". Childhood Education 1964, 41, 195-198.

Nicholls, J.G. "Effort is virtuous, but its better to have ability: Evaluative responses to perceptions of effort and ability." Journal of Research in Personality 1976, 10, 306-315.

O'Leary, K.D. and O'Leary, S. ed. Classroom Management:The Successful Use of Behavior Modification 2nd ed., New York:Pergamon Press, 1977.

Omelich, C.L., and Covington, M. "Teacher reward and punishment:Are student perceptions of teacher behavior veridical?" Unpublished manuscript, University of Caalifornia, Berkeley.

Rest, S., Nierenberg, R., Weiner, B. and Heckhausen, H. "Further evidence concerning the effects of perceptions of effort and ability on achievement evaluation." Journal of Personality and Social Psychology 1973, 28, 187-191.

Rosen, B.C., and D'Andrade, R. "The psychosocial origins of achievement motivation." Sociometry 1959, 22, 185-218.

Schreier, M.A. and Kraut, R.E. "Increasing Educational Achievement Via Self-Concept Change". Review of Educational Research 1979, 49, 131-50.

Shaw, M.C. "Definition and Identification of Academic Underachievers." In Guidance for the Underachiever with Superior Ability edited by L.M. Miller, pp. 15-27. Washington, D.C.:Government Printing Office, 1961.

Shaw, M.C. and Alves, G.J. "The Self-Concept of Bright Academic Underachievers:Continued". Personnel and Guidance Journal 1963, 42, 401-3.

Silvernail, D.L. Developing Positive Student Self-Concept, National Education Association, Washington, 1985.

Spaulding, R.L. "Achievement, Creativity, and Self-Concept Correlates of Teacher-Pupil Tranactions in Elementary Schols." In Readings in Child Behavior, 2nd ed., edited by C.B. Stendler, pp. 313-18. New York:Harcourt, Brace and

World, 1964.

Stanwych, D.J. Self-Concept Development:A Longitudinal Study (Doctoral Dissertation, Purdue University) Ann Arbor, Mich. University Microfilms, 1972, NO. 73-15872.

Stenner, A.J. and Katzenmeyer, W.G. "Self-Concept Development in Young Children". Phi Delta Kappan 1976,, 58, 356-57.

Stikep, D.J. "Children's Perceptions of Their Own and Their Classmate's Ability." Journal of Educational Pychology June 1981, 73, 404-10.

Sullivan, H.S. The Interpersonal Theory of Psychiatry. New York:Norton, 1953.

Syngg, D., and Combs, A.W. Individual Behavior New York:Harper and Row, 1959.

Thomas, J.B. The Self in Education. Windsor:NFER Publishing Co., 1980.

Tuttle, D.W. "The Role of th Special Education Teacher-Counselor in meeting Students' Self-Esteem Needs". Journal of Visual Impairment and Blindness April 1987, 156-161.

Waitley, D. The Winners Edge New York:Berkley Publishing Co., 1985.

Weiner, B. Theories of Motivation:From mechanism to cognition Chicago, Rand McNally, 1971.

Weiner, B. "Attribution theory, achievement motivation, and the educational process." Review of Educational Research 1972, 42, 203-215.

Weiner, B. Achievement Motivation and Attribution Theory Morristown, N.J.:General Learning Press, 1974.

Weiner, B. "A theory of motivation for some classroom experiences." Journal of Educational Psychology 1979, 71, 3-25.

Weiner, B., and Kukla, A. "An attributional analysis of achievement motivation." Journal of Personality and Social Psychology 1970, 15, 1-20.

Williams, R.L. and Cole, S. "Self-Concept and School Adjustment" Personnel and Guidance Journal 1968, 46, 478-81.

Yarrow, M., Waxler, D., and Scott, H. "Child Effects on Adult Behavior." Developmental Psychology 1971, 5, 300-311.

APPENDIX A

398 Clairbrook Cr.,
Waterloo, Ontario,
September 1, 1984.

Dear Parents,

My name is John Kearns. I am a teacher employed by the Waterloo County Board of Education and I am presently at the stage of conducting research to complete my Ph.D. degree in Education at the University of Alberta in Edmonton.

My study concerns the self-concept of students and practical measures that teachers can use to improve student's self-concept. I will be working closely with your child's teacher over this school year and as part of my research, I would appreciate access to the results of two tests that your child will write this year, the Coopersmith Self-Esteem Inventory and the Canadian Test of Basic Skills, a commonly administered achievement test.

Your child's name will not appear on the tests and all results of these tests will remain confidential.

It is my hope that with your cooperation, my research will lead to new information that will benefit all students. Thank you in advance for your cooperation in this project.

Yours truly,

John Kearns

APPENDIX B

LIBRARY SKILLS

Locating Materials

-Main classes in system
-Use call numbers to locate
-use library title index
cross reference in library cat.
-use author file
-locate special tools
-select appropriate learning res.
-know diff. and similarities
between school and local library

Select and Interpret Information

-learn these terms: glossary
subtitle
foreward
Chapter headings
appendix
Cross reference
Preface

-use an index
-use a glossary
-use a Junior Thesauraus
-use a Junior Atlas
-Differentiate between
Primary and Secondary Resources
-learn the significance of
Copyright
-use newspapers for information
-use cross references in encyclopedia
-use pronunciation key
-know distinction between
relevant and irrelevant information
-examine material for validity and
accuracy

Library Skills cont.

-recognize fact from opinion
-use: charts
graphs
diagrams
-develop an awareness for
periodical indexes
-locate material in pamphlet file
-locate info in picture file
-use records to obtain info.
-run 16mm sound projector
-make overhead transparencies
using felt pens
thermal process
other methods

-use video cassettes to get info.
-skim videos for main idea
-locate video cassettes by title
subject
-get info. from computer programs
and follow instructions

Recording Information

-use notetaking techniques
-write paragraph from notes
-use maps and graphs to
record information
-construct a model book
-prepare a bibliography
-prepare an outline from notes
-express own ideas using references to
support claims

Library Skills cont.

Presenting Information

-make slides
-use overhead projector
-use slides with oral comments
-create Bulletin Board to convey message
-use own transparencies in oral presentations
-use a filmstrip
-present a dramatization
-use commercial materials to present information to a group

Appreciation and Enjoyment

-read fantasy and other fiction
-order and enjoy video cassette
-be aware of fictional writing and research writing
-find and enjoy a mythology
-find and enjoy Historical fiction
-experience: drama
music
poetry
dances
stories

Mathematics Skills

Arithmetic

Place values to millions
-Adding
-Subtraction
-Multiplication
-Division
-Order of operation
-Number sentences

Fractions

- 3/10 + 5/10
- 3/10 + 2/4
- 1 3/10 + 3/6
- 2 1/10 + 2 1/4

-5 - 2 1/8
- 3/4 - 2/8
- 7 5/8 -2 1/4
- 7 2/5 - 2 7/10
- 9 3/4 - 5 1/6
- 9 1/6 - 5 3/4

- 1/2 x 4
- 1/2 x 3/4
- 6 x 2 1/3

Decimals

- Reads 0.075
- Writes 0.075
- Changes 9/10000 to 0.0009
- Rounding

-Adds
- Subtracts
- Multiplies 1.37 x .35
- Divides 5.4 ÷ 9

Mathematics Skills cont.

- Converts 0.07 to 7/100
  3/5 to 6/10 to 0.6
  2 17/100 to 2.17

Graphs

- personal
- labelling -line
  -bar

Geometry

-angles
-triangles
-parallel lines
- Quadrilaterals
-Characteristics of Quadrilaterals
-Lines of Symetry
-Slides, Flips, Turns
-Congruency
-Compasses
-Logos, Designs
-Scale Drawing

Measurement

-Linear
-Perimeter
-Area
-Volume
-Mass
Temperature
-Time
-Money

Environmental Studies Skills

Unit 1

2

3

4

5

6

7

8

9

10

11

12

Environmental Studies Skills List

Library Resources

- titles as a guide to content
- table of contents
- index
- appendix
- maps
- atlases
- card catalogue
- library book card
- footnotes
- dictionary
- bibliographies

Print Sources

- books
- encyclopedia
- dictionaries
- atlases
- almanacs
- pamphlets
- pictures
- newspapers
- magazines
- graphs
- charts
- tables

Communication Equipment

- camera
- Polaroid
- T.V. Porta Pac
- film projector
- viewers
- filmstrip projector
- video tape recorder
- record player
- tape recorder
- head sets
- slide projector
- overhead projector
- opaque projector

Standard Instruments

- rulers
- tapes
- stop watches
- compass
- trundel wheel
- scales
- thermometer

Measuring

- Estimate and Predict -number
  -length
  -area
  -capacity
  -mass
- Standard units of -size
  -shape
  -length
  -width
  -height
  -mass
  -weight
  -volume

Observing

- smelling
- seeing
- feeling
- tasting
- listening

Extension Equipment

- magnifiers
- microscopes
- binoculars
- telescopes
- dissection equipment

Classifying

Comparing -similarities and differences
-contrasting

Ordering by -mass
-length
-number
-pattern
-events
-facts

Art Skills

Picture Making Composition

Centre of Interest	-large
	-colourful
	-contrast
	-placement
Related Objects	-overlapping
	-object size
	-unity
	-varied lines
	-run off
	-picture balance
Color	-entire page filled
	-weight of paint
	-warm and cool
	-compliments/contrasts
	-tints
	-balance and variety
Texture	-interest
	-variety
	depth
	-balance

Art Skills cont.

Figures	-large
	-showing action
	-variety of views
	-partial figures
	-groups
	-variety of size
	-clothing
	-facial expression

Sculptures

Building	-various joining processes
Forming	-through rearranging material
Modelling and Ceramics	-mass manipulation
construction	-assembling materials

Print Making

study of design	-design
	-balance
	-repeat
	-asymmetrical
Relief printing	-natural
	-prepared surface
	-carved surfaces

Art Skills cont.

Planographic Prints	-rubbings
	-monoprints
	-transfer images
Stencil Printing	-spray painting
	-sponge, brush, chalk
	-silk screen
Intaglio Printing	-crayon etching
	-scratch board

LANGUAGE SKILLS

1. Letter Writing (a) friendly letter (i) parts and punctuation						
(ii) invitations						
(iii) thank you notes						
(iv) addressing envelopes						
(v) get well notes						
(b) business letter (i) parts and punctuation						
(ii) to request information						
(iii) addressing envelope						
2. Paragraph Writing (a) (i) paragraph and its parts						
(ii) steps in writing (planning, writing, checking)						
(iii) indentation and/or block form						
(iv) good beginning and closing sentences						
(v) good titles						
(b) narrative paragraph - to tell a story						
(c) descriptive paragraph - to paint a picture appeal to the senses, create a mood or feeling, to make good use of adjectives)						
(d) expository paragraph - to explain (e.g. note making)						

3. Story Writing (a) more than one paragraph						
(b) themes for writing (creative)						
(c) biography, autobiography						
(d) longer narrative - character and plot development						
4. Class Newspaper (optional)						
5. The Sentence (a) classification sense of completeness						
- formal names: assertive interrogative, imperative, exclamatory						
(b) structure - subject/predicate - bare subject/ bare predicate						
- modifiers of B.S. & B.P. (word & phrase modifiers)						
(c) Order: natural, split, inverted						
6. Parts of Speech (a) The Noun - usage						
- singular, plural						
- common, proper						
- possessives (singular & plural)						

(b) The Verb - usage						
- helpers						
- agreement in number						
- simple tenses (past, present, future)						
- auxiliary verbs						
- consistency in tenses						
(c) The Adjective - describing words						
- recognition & use						
- "modifier"						
- comparison of adjectives						
- adjective phrase						
(d) The Adverb - "word that describes a verb"						
- recognition & use						
- "modifier"						
- comparison of adverbs						
- adverb phrase						
(e) The Pronoun - "substitute for noun"						
- correct use						
- recognition and use						
(f) The Preposition - recognition & use						